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The Sheep Industry Of Argentina

By FRANK W. HARDING, Waukeesa, Wis.

ARGENTINA'S sheep industry is about on the same scale as that of the United States. Each country has somewhere in the neighborhood of fifty million head, and the sheep population of both appears to be about stationary. Argentina, however, exports the bulk of the wool and mutton it produces while the United States has a home market for both commodities and imports wool in large quantities.

On my recent visit to South America I did not devote much attention to the flocks of Argentina, but naturally picked up some information by the process of contact. The foundation stock was Merino of the old Spanish type, and improvement has been effected by the use of Rambouillet and Lincoln rams. In such expenditures, Argentina breeders have been by no means parsimonious, in fact, they have demanded the best and paid prices that look extravagant. In many instances they have bought European show stock, fattened for exhibition purposes at the expense of fecundity, and such rams have proved to be poor investments. The Argentine breeder when importing insists on rams of great weight and in high condition, however, and as we are not in the habit of preparing stock that way, I doubt if we could interest him. Not but that we have the quality and breeding among our flocks, but we do not mature rams to the size, weight and show

condition the Argentine breeder demands, and I doubt if we could educate him to accept our standards. They have not learned by the costly lesson of experience that prize winners are not always the most desirable for service. Argentina has paid as high as \$5000 for rams that never did give a good account of themselves, and buyers were lucky to get them to their destinations alive.

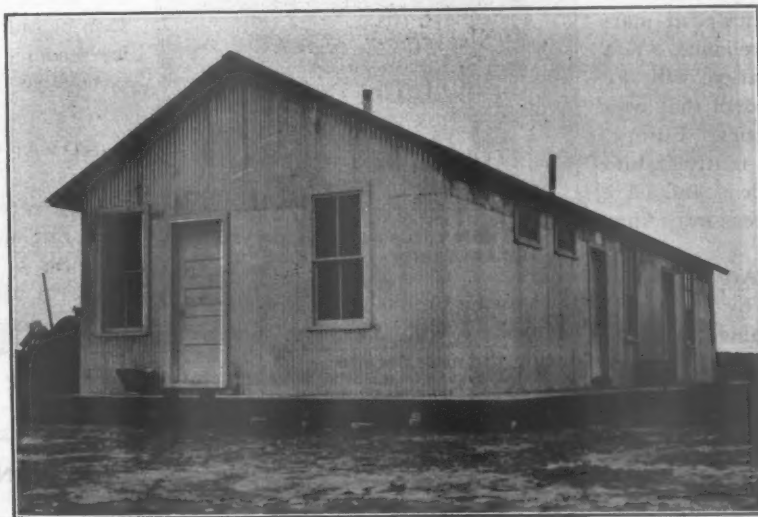
Lincoln and Rambouillet blood predominates in Argentina for the reason that the country is a long distance from the world's meat markets, and until a

flocks of the country. Most of the sheep I saw at the Buenos Aires market ran strongly to Lincoln blood, Argentine mutton lacks the quality demanded by the fastidious consumers of the United States, and in England is bought mainly by low-priced trade. The Argentines eat little of it, preferring beef, and I am informed that the limited quantities imported by the United States have had difficulty in finding an outlet. Quality, certainly, will need marked improvement if it is to become popular on our market.

I had no opportunity of observing how English sheep act under range conditions in Patagonia or on the Andean plateau of Argentina, but in the low altitude country, especially the province of Buenos Aires, they deteriorate rapidly, necessitating constant importation if quality is to be maintained. This is attributable to native grasses and alfalfa which do not appear to possess the requisite bone and muscle making qualities. The result is that the English standard soon disappears. This could prob-

ably be avoided by providing a variety of such feed as cabbage, kale and rape, but the Argentine prefers to import new stock. Many of their flocks are not being perpetuated in the original form. Our sheep look plumper and more thrifty than South American stock.

In my judgment we need fear no serious invasion of the North American market by South American mut-



SHEARERS BATH HOUSE AT THE DALEY SHED, NEAR RAWLINS, WYOMING

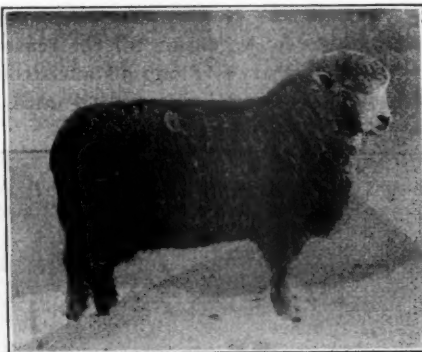
few years ago, the mutton outlet was narrow. Development of refrigeration has changed this, but until recently the industry was on a wool basis and the combination of Lincoln and Rambouillet made a three-eighths blood wool that was suited to the needs of the trade. Lately some Oxford, Shropshire and Hampshire rams have been introduced, but they are few in number and have exerted little influence on the

ton. In principle I am a protectionist and believe our flock owners, handicapped by climatic vicissitudes, high labor and increasing expense in every item involved in wool and mutton production should have the benefit of a substantial customs import but theory does not always work out in practice, and I am free to say that much of the beneficence of former tariffs was largely imaginary so far as the grower was concerned, but tariff or free trade, we are not destined to encounter serious competition from South America in the mutton market of the United States. Argentina cattle growers are looking hopefully to the North American outlet for their beef, but they realize that their mutton is more suited to the European market than this, and that most of it will find that outlet channel. England, France, and Italy will take larger quarters and coarser meats than the United States. Our market demands light cuts and quality and until Argentina adapts itself to our requirements the European market will be its best reliance. You never know what education will do, however, and breeders down that way may change their tactics. Europe, however, will buy frozen mutton while we demand it fresh killed and Argentina can never enter into that trade.

The sheep industry in Argentina has been greatly stimulated by the war. Both wool and mutton values have advanced materially and this is likely to stimulate production. We must remember that Argentina is essentially an agricultural and pastoral country, and that every pound of increased output means that much more for the frozen market. Packers, however, are not likely to carry coals to Newcastle and as they are in control of distribution they will put product where it is most needed. That place will, in all probability, be Europe. After the war for many years that continent will require large quantities of meat and South America must, in the nature of things, be a heavy contributor.

South American livestock markets differ radically from ours. At Buenos Aires they sell sheep by the head and

pen them in the open at the market. Prices are 75 to 90 per cent of Chicago quotations, but packers buy only a small proportion of the stock they kill contracting the bulk up the country for delivery at their slaughter houses. It is a country of cheap production. Land producing as much feed as that valued at \$75.00 to \$200.00 per acre in the United States may be had for \$25.00 to \$30.00 in gold and labor costs half as much as here. Save for an occasional drouth, they have little vicissitude and the Argentine flockmaster is not under the heavy expense for wintering that confronts growers in the United States under new conditions. If values continue high, and there is no reason to theorize otherwise, it is highly probable that wool



A PERFECT CROSSBRED EWE OWNED BY LAIDLAW & LINDSAY, MULDOON, IDAHO.

and mutton production in the southern hemisphere will increase materially during the next decade.

FEWER SHEEP IN NORTHERN MONTANA

In the neighborhood of 40 per cent of the 1916 lamb crop has already been contracted for, prices in most contracts are on the 7-cent basis, October delivery at loading points.

There have been offers as high as 7¼ cents for some especially good mutton bred lambs, but these offers have been turned down, the holders anticipating a still higher price later on.

There have been but few sales of wool in this locality, probably the holdings, of about ten woolgrowers prices at or about 28 cents. At the

present writing there are no buyers in this section. In fact, the only one having made any purchases is Jack Patterson of Patterson & Co., of Boston.

There have been, probably, in the neighborhood of 40,000 ewes disposed of prices ranging from \$6.00, for those coming yearlings to a trifle over \$8.00 for those more desirable as to age and condition.

Owing to depleted range, I have disposed of the sheep advertised through the columns of the "National Wool Grower." Will practically drop out of the business in the future, owing to the scarcity of range in this part of the state.

The "Wool Grower," seemingly, has a wide circulation, as I have had numerous inquiries from many sections of the country for the sheep advertised. While the outlook for the sheep interests was never brighter than at present for those having ample range, there are several in this section who will soon be obliged to give up the business for reasons above stated.

April 15. F. I. LONG, Montana.

ADVANCE IN MILL WAGES.

Very recently many of the largest New England woolen mills announced advances of about ten per cent in the wages of all employees. The American Woolen Company and the Arlington Mills, two of the largest concerns, were among the first to make these advances.

JACKSON'S RAMBOUILLETS.

Since the death of R. A. Jackson, the Rambouillet breeder of Dayton, Washington, there has been some speculation as to whether the Rambouillet flock would be dispersed or not. We are glad to announce that Mrs. Jackson has advised that the Rambouillet flock will be continued under her direction and that of her son. They will continue to breed the same type of rams that has been produced in late years under the direction of Mr. Jackson.

Wool Growing In Australia

By R. H. HARROWELL

IN this issue I would like to refer to one or two matters that have recently been discussed among sheepmen in Australia. Probably they equally concern woolgrowers in your country.

Overshot Jaws in Sheep.

This overshot jaw is a defect rarely found in Australian stud sheep, and it may be taken for granted that the prominent breeders here would not run the risk of prejudicing their sales in Africa by sending sheep with serious hereditary defects.

Overshot jaws is a defect that would certainly go against a ram, no matter how good otherwise, in an Australian show. I have heard breeders say that this overshot jaw has been occasioned by feeding sheep on mangolds and turnips, the scooping action of the lower jaw resulting in abnormal development. Admitting that these deductions are reasonable, a strong argument against the overshot jaw being a general result of such feeding, is found in New Zealand where large flocks of sheep are fed for considerable periods on turnips, without overshot jaws resulting.

However, a judge at a show is not supposed to know how the sheep before him came by the defects he discovers, and it is for him to estimate the importance of such defects. The overshot jaw would be a most serious defect to propagate amongst ordinary flock sheep that have to get a living on natural grasses, therefore a breeder would run a risk in using such a ram in the stud. Both wool and mutton depend entirely upon what the sheep is able to eat and any malformation that impairs his means of subsisting

must be condemned. Therefore in a show the overshot jaw would seriously discount the other good points a ram possessed. Of course no sheep is really perfect, and faults and defects have relative degrees. Many a good ram has, say, a tendency to be uneven in his fleece, but he would not be such a risky ram to use as one that was very uneven. In the same way a ram with a slightly overshot jaw would not be so objectionable as a ram that showed the defect in a very marked degree. Then, again, this malformation may appear as a freak in a ram descended

ly he has had no cause to regret the purchase. Certainly he knew exactly how the ram was bred for generations back, and being a sheep of remarkable quality, specially suited to his ewes, he attached little importance to the defect. Some years ago a magnificent Merino ram was offered at the big annual ram sales at Sydney, but he happened to have an overshot jaw, and no one would bid for him. I believe that the principal of the Technical College made the only bid of one guinea, and the ram was knocked down to him. He had it killed and stuffed as an example of a magnificent ram except for this one defect.

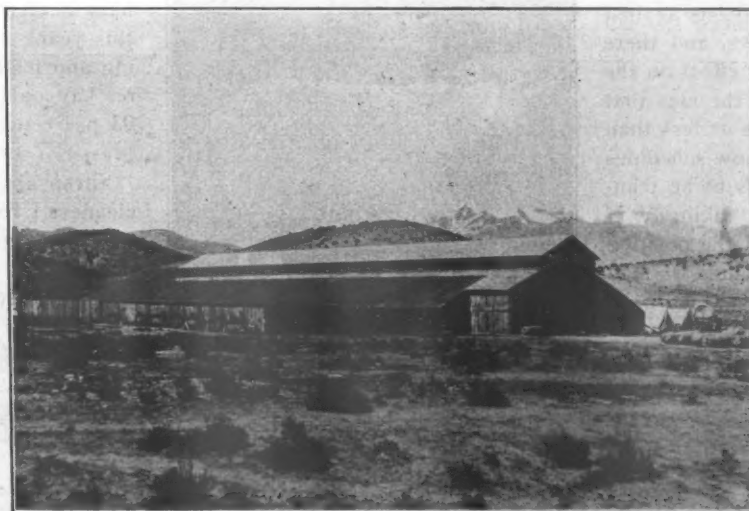
As regards showing, excellence can only be gauged by the freedom from faults, and the overshot jaw is a serious fault, even if the sheep has remarkable characteristics in other directions; certainly it would be enough to spoil its chances of success if the competition should be at all keen. Like every other characteristic, good or otherwise in stock, this overshot jaw, no doubt, can be made hereditary, therefore a breeder would be wise to reject such a ram, and a judge would be justified in disqualifying him at a show.

"Faking" Sheep.

This is a subject which is constantly recurring, and it is at present causing much discussion in New Zealand.

It especially applies to the Downs breeds.

Whilst freely admitting that the public are entitled to object if they think fit to the practice of trimming Shropshire or Southdown sheep for show or sale, exception should be taken to the use of the word "fake" for what does



THE SHEARING SHED AT FAIRFIELD UTAH

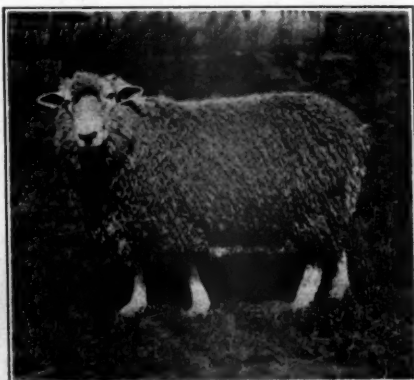
from a long line of ancestors absolutely free from it, in which case the chance of him passing the defect on to his progeny would not be as great as if it was of frequent occurrence amongst the family from which the ram descended. So the wisdom of using a ram with an overshot jaw would be largely determined by knowing all about the sheep in question. As far as Australia is concerned, there are breeders of long experience who would fight very shy of a ram with an overshot jaw, while, on the other hand, one of our most prominent breeders gave 600 guineas for a ram showing this defect, and apparent-

it imply but dishonesty? A man who fakes his sheep or anything else tries to deceive the public, and surely this conduct cannot be imputed to our leading Shropshire and Southdown breeders because they all trim their sheep? At the Royal Show in England, and at other leading shows all over the world, the Downs sheep are trimmed when exhibited, and the custom is a very old-established one. The success and importance of the Shropshire at the present time proves that the practice has not been detrimental to the breed, and the repeated orders breeders get from men who have bought trimmed sheep are good enough evidence that buyers have not felt themselves to be victims of a fake when they have shorn their purchases.

Lately we have read protests against this practice at our shows, and there seems to be a determined effort on the part of some to inculcate the idea that trimming is nothing more or less than faking. As long as the show schedules openly permit the exhibits to be trimmed the practice is not "faking." If trimming were prohibited the position would be quite reversed, and a man who trimmed a sheep when it ought to be shown in a rough would be guilty of faking. Therefore, those who object to trimming should attack the associations for permitting the competition of barbered sheep, and not attack breeders for faking. The imputation is unpleasant, and I wonder that breeders have not more loudly objected. The breeders know better than anyone the great labors attached to trimming sheep, and I believe they would gladly abolish the custom if it would not prejudice the interests of the breed.

It is believed that trimming is advisable, not because it enables breeders to pass off worthless sheep for good ones, but because it shows off the naturally symmetrical carcasses of the Shropshire and Southdown to the very best advantage. It is like a good grooming to a horse or bull. It may be argued that Merinos and Longwools are not trimmed, therefore why should the Downs breeds be? Simply because the Longwools and Merinos can-

not be trimmed, but very often other means, less apparent than trimming are adopted in the very natural endeavor to make them look their best for show or sale. To me the very fact that the practice of trimming is universal is a safeguard against the objections raised. In the realm of studs nearly all breeders trim, and they are well aware of how far the faults of a Shropshire can be disguised with the shears, therefore when buying or judging they know just where to look for indications that a sheep has been cut into shape. A Shropshire is a carcass sheep; he is bought for firm, even flesh, not for his neat outline. Therefore he is handled, and this quickly reveals any pitiful attempt at deception. Any-



ONE OF GOV. GOODING LINCOLN STUD RAMS

thing tending towards the production of artificial stock should be eliminated from show schedules, and if trimming is wrong it should be abolished, but as long as it is recognized and encouraged the custom is no more "faking" than that of turning Merinos on to dark soil in order to get a good black tip, a characteristic they would not have under ordinary conditions, but which adds to their appearance in the show pens.

If trimming is fairly done it follows the symmetry of the sheep, while an attempt to disguise a faulty sheep is easily detected by the judge, and he should not hesitate to expose it.

We invite you to inspect carefully the list of entries for the Salt Lake Ram Sale, August 30 and 31, and September 1 and 2.

FROM ELLENBURG, WASHINGTON

This last winter was the hardest winter on stock in the Northwest that I have seen in twenty-eight years. I paid \$40 for hay and \$57 for corn and oats per ton delivered to my ewes twenty-six miles through two feet of snow, the deepest snow I have ever seen in the Columbia Basin. But the losses in eastern Washington will not be over seven per cent, possibly less, but in eastern Oregon there were some heavy losses I am told.

Grass has been good now for about three weeks, and everything is O. K., but instead of making 100 to 130 per cent, as is usually the case in the Columbia and Yakima Valley, we shall have nearer 80 to 85 per cent of lambs this year. I am nearly through lambing and made 78 per cent in February on hay out of two-year-old ewes and 93 per cent out of the older ewes on grass.

Sheep are thin, but the wool is the cleanest I have ever seen in Washington. No contracting has been done here before shearing, but most of the clips already sheared have sold from 2 to 4 cents higher than last year.

K. O. KOHLER.

CORRIEDALES FOR NEVADA.

The University of Nevada is in receipt of a trio of yearling Corriedale sheep to be used for demonstration purposes in the state. These sheep were purchased of Mr. C. H. Ensor, Whiterock, Rangiora, New Zealand. They were shipped from New Zealand on February 29, 1916, and reached the University April 12 in good condition. All three are yearlings and of excellent Corriedale type.

Nevada sheep breeders have taken a decided interest in this importation and have expressed a desire to assist the University in carrying out plans for demonstrating the desirability of this type for Nevada conditions. Plans for this demonstration are now being formulated and the work will be taken up this fall.

Lamb Raising In Illinois

AN INTERVIEW

ILLINOIS ought to be a lamb-raising state. Its southern portion is admirably adopted climatically and otherwise, but a load of Illinois spring lambs at the Chicago or Missouri River markets is a novelty, although occasionally some expert shepherd demonstrates that the thing is possible. W. C. Coffey, the sheep expert at the Illinois Experiment Station located at Urbana, less than a year ago made a notable exhibition of what can be done by the intelligent use of forage plans on a cornbelt farm and another is forthcoming. I recently visited the experiment station and found its sheep department interesting and instructive. Coffey has assembled a flock comprising most of the breeds and is engaged in experiments with lamb raising that with present market conditions and prospects ought to attract nationwide attention.

Two groups of lambs are being raised both out of doors to test the merits of rye, alfalfa, and rape. The cafeteria system of selection of concentrated feeds is also undergoing a test. This has been used successfully at the Iowa station with hogs, but has never been tried with lambs. In brief the animal is allowed to select its own feed, bran, oil meal, cracked corn, and ground oats being the principal concentrates supplied. The result of this experiment will be made known early in July. Coffey is aiming to ascertain what variety of forage and pasture crops and feeds will produce lambs and carry sheep on cornbelt land most economically.

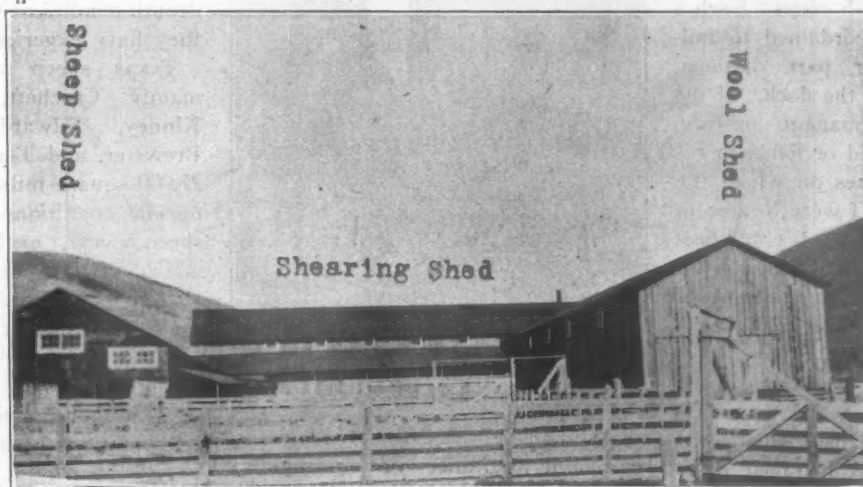
"Roy Bishop, county agent of Liv-

ingston County, Illinois, has evolved an excellent idea," he said, "and it is making headway. He proposes to raise forage crops, feed them down partly and turn the rest under to supply humus. The sheep can do this better than any other animal and as a soil restorer no better plan could be devised. The trouble with sheep husbandry so far as the average farmer is concerned is that he is not prepared to give these animals the care they must have if they are to pay. One of the most successful sheep raisers in Illinois, Jake Zeigler, of Clifton, once remarked that sheep did not require much care, but needed it all the time.

along with cattle, hogs and horses. On these over-pastured, worm-infested spots, successful sheep husbandry cannot be carried on. In most cases the flock would fare better if no such pasture existed on the farm. The problem we have to wrestle with in the farming area is how to provide feed and proper range for the flock, with extensive pastoral areas a thing of the past.

"Few animals excel sheep in handling various kinds of feed; in other words sheep can utilize practically any feed the farm produces. It is amazing what methods of fattening, and I use the term advisedly, may be prosecuted with success. For example the ration may be very carbonaceous in nature and still yield fair results. We have fattened lambs on corn silage with a small quantity of clover hay and secured excellent gains. Corn, silage, and oats straw fed to yearling wethers was little behind corn and alfalfa in putting on weight. On the

other hand, I know of a concern in Nebraska that starts western lambs on prairie hay and linseed oil meal in self feeders, later substituting half of the oil meal with corn. Satisfactory gains are secured by this method and the feeders have the utmost confidence in a ration decidedly over-balanced with protein. Any of the grasses or legumes are acceptable forages to sheep. The public is tired of hearing of their fondness for weeds, but several years ago the Minnesota Experiment Station made a test in which sheep ate with relish 576 out of 600 varieties of weeds. On western



SHEARING PLANT OF WOOD LIVESTOCK CO., SPENCER, IDAHO

Attention to detail is imperative. Sheep must have comfort and the grower who is not prepared to furnish it might as well let them alone.

"In the cornbelt we must realize that conditions have changed and that raising sheep successfully by the methods of a decade ago is impossible. Expansive pastures, once common, are disappearing and sheep need range. Flock owners do not know how to meet new conditions as when they ripped up their pastures sheep went to the stock yards. Others are keeping flocks almost the year around on five to ten acre blue grass patches

ranges most weeds are considered as valuable as grasses for sheep feed. The lesson of all this is that sheep can be utilized to harvest almost any crop and nearly every acre on the farm ought to be gleaned over sometime during the year by them.

"Such gleaning cannot be done, however, without sheep-tight fences, and a farmer with a determination to raise wool and mutton should consider this a preliminary necessity. It is true that fencing involves expense but so does any other scheme of livestock farming. A successful sheepman once said: 'My neighbors say they cannot afford to fence their sheep; I cannot afford not to fence them.' Sheep growing cannot be made successful, however, merely by fencing the farm and giving the flock the waste and residues from cash crops. Such a system would be preordained to failure. Some crops, or part of them, must be designed for the flock. If the farm is without permanent pasture, there should be a field or fields in rotation growing legumes on which the sheep may graze. If I were located in Indiana, Iowa, or Illinois, I would prefer a field of clover and timothy in rotation for my flock than an equal area of blue grass. Clover alone is good forage and sweet clover is receiving attention as a grazing plant for sheep, promising to be an excellent forage. Alfalfa causes bloat, otherwise it is an excellent field feed. Rape has an established reputation as a fattening forage with considerable carrying power on fertile areas. Soy beans and cow peas are also worth reckoning with. Rye is valuable early in the spring before other green feeds are ready for pasturing."

Coffey believes that by establishing English methods on American soil sheep husbandry may be made profitable on the high-priced lands of the cornbelt, and he is now working out data to show how the maximum number of ewes and lambs may be carried to the acre. It means intense cultivation and the use of forage crops to the limit. By utilizing these crops as specialties with farm crop waste and

weeds success alone is possible where grain raising is generally practiced. Such a combination will advantageously displace blue grass pasture as it will repress infestation with internal parasites and supply the extensive range and frequent change which sheep must have if they are to do well. This does not mean that the permanent pasture system is not applicable to broken country of which there are millions of acres east of the Missouri River admirably adapted to sheep and of little use for raising grain. It outlines a plan for wool and mutton production by the man who desires to handle sheep and who is practicing well balanced crop



SOUTHDOWN YEARLING WETHER, GRAND CHAMPION, LEWISTOWN SHOW. OWNED BY UNIVERSITY OF IDAHO.

rotation. Doubtless if there was any reasonable assurance of continuance of present prices, such logic would find more listeners, but if the industry is ever to be reinstated on the rich lands of the cornbelt states, it must be on a forage-crop basis. When Coffey announces results of pending experiments in July, they will be well worth perusal and digestion.

SMALL TEXAS LAMB CROP.

Texas will have a much smaller lamb crop this year than would have been the case if grass had been available. Contracting was on a large scale last fall, but many growers are unable to make deliveries owing to climatic vicissitudes. In some sections ewes

were not able to take care of their lambs and less than fifty per cent were saved. This means not only a short supply of wether lambs, but arrest of the process of reinstating the industry. All over Texas flockowners have been hit hard. Reports show that conditions have been the worst in many years. The winter was unusually dry and sheep suffered not only for grass but water. At lambing time in March ewes were in poor condition and lambs died by the thousand. Last year's crop was garnered closely, many ewe lambs being sold, and it is probable that instead of gaining in ovine population Texas has lost ground.

Texas sheep go to the market mainly as grassers. When both grass and water are scarce, making them fat is impossible. Goats thrive better under drouth conditions than sheep, but even they have experienced vicissitude.

Texas sheep raising territory is mainly Crockett, Valverde, Pecos, Kinney, Edwards, Kerr, Sutton, Brewster, and Terrell counties, about 27,000 square miles. This area under normal conditions produces 350,000 sheep a year, exclusive of goats of which 200,000 head go to market. Drouth is expected to reduce the season's sheep output about 175,000 head.

Texas is disposed to "get back" into sheep and would have made a long stride in that direction had meteorological conditions been favorable.

J. E. P.

TO KILL COYOTES.

I believe the time to kill coyotes is when we are leaving our summer range. In every band of sheep there are some cripples or old pelters that are no good. One should kill these and fill them with poison and then hang the carcasses up in trees high enough so that the dogs could not get at them. When the snow came, the coyotes could reach the carcasses, and they would eat them readily. In this way our dogs would be protected and the summer ranges could be cleaned up.

JOHN SEELY, Utah

Lofty April Sheep Market

By J. E. POOLE

MORE sheep and lambs showed up at western markets in April than the talent expected. As was anticipated, Colorado was the chief contributor and minus supply from that source, it would have been hard picking for killers. It was a lamb run, matured sheep being scarce. Few Texas sheep showed up and the customary April break did not occur. Features of the month's trade were:

Maintenance of values on a high basis despite somewhat liberal receipts.

Hanging up a number of new records, every grade participating.

Determined discrimination against heavy lambs, owing to the large percentage of that kind.

Abnormal scarcity of matured sheep and yearlings, about eighty-five per cent of the run being lambs.

A wide gap between shorn and woolled lambs owing to high prices for pulled wool.

Paucity of native stock of all kinds, the contribution from cornbelt farms being the smallest in many years.

All the prediction made concerning the April market was not verified, but little complaint was heard. Feeders' profits were satisfactory although the stuff cost big money when put in and the feed bill was high. It was evident as the month progressed that some feeders had overstayed a good market and that the crest of the boom, if such it may be called had been passed. Sheep made a phenomenal performance, all previous records being eclipsed. Packers fought the market strenuously and used the "big stick"

whenever opportunity offered, but most of the time their needs were concealed. Scarcity of natives gave the commission interest a powerful leverage and considering its history, the market exhibited stability. Whenever prices were depressed, supply was promptly curtailed. Lambs experienced several bumps, but sheep values steadily advanced as the month progressed, the finish being at the highest level of the year and in market history.

Average prices as they are figured at the market are merely approximations. During April this average on lambs

50 cents, while shorn wethers and ewes gained 60 cents to \$1.00 per hundredweight. It was a fifty cent higher market on an average than the previous high April, lambs averaging 95 cents above the former April high spot.

In tops a display of pyrotechnics was made. Mexican lambs from a Colorado feed lot, averaging 68 pounds scored at \$12.00; for woolled lambs other than Colorados \$11.85 was paid, Mexicans fed in Illinois claiming that money. Native spring lambs from Iowa sold at \$17.00 per hundredweight; western lambs were taken to Michigan for shearing purposes at \$11.50, California spring lambs sold at \$13.00, with individuals at \$18.00; Colorado-fed Mexican yearlings made \$10.90, fed western yearlings \$10.50, aged western wethers \$9.40 and individuals \$9.50. Native ewes sold up to \$9.25 and fed western ewes to \$9.00. Scarcity of heavy sheep created an abnormal demand for fat bucks, \$8.50 being paid. Many big native ewes grossed \$25.00 per head and

bucks \$20.00@23.00 per head.

Only extreme heavy lambs sold below \$11.00 during the month and thousands of handyweight Colorados sold at \$11.50@11.90. At the inception of the month \$8.75 bought the best heavy woolled ewes, but before the close they were worth \$9.25. Few handyweight woolled yearlings sold below \$10.25 and the record top at \$10.90 was 95 cents above the record previously hung up.

Shorn sheep made a somewhat spectacular advance during the month, but a widespread between the two classes of lambs was preserved. Shippers



SHEARING SHED OF J. M. RUMSEY, NEAR TABLE ROCK, WYOMING

was put at \$10.60 per hundredweight or fifty cents lower than the March average, which was a record, but this was due to a large percentage of shorn stock. Top prices were all records and are calculated to discredit the average. April first found the general run of values 10@15 cents higher than early in March with spots that showed a 25 cent gain.

Matured sheep figured an average for the month of \$8.20 per hundredweight, although the percentage of woolled stock was small. The best woolled wethers advanced 25 cents during the month, the best woolled ewes

rarely buy shorn lambs and were a factor in maintaining the premium on woolled grades. Everything shorn registered new records. Shorn lambs sold up to \$10.00 with a few selected tops at \$10.50; shorn yearlings reached \$8.85, wethers \$8.30, native ewes \$8.25 and bucks \$7.50. A spread of \$9.00 @9.75 took most of the shorn lambs with shorn yearlings largely at \$8.25 @8.60, shorn wethers \$7.75@8.15 and ewes \$7.25@8.00.

Lambs sold lowest during the first week of the month, highest the second and third weeks, while good sheep were lowest at the opening and highest at the close.

Eastern killers were free buyers much of the time as markets down that way were bare. Over 50,000 head of woolled lambs were bought at Chicago on shipping account during the month, an increase of 18,000 over the same period last year. Shearers were hungry most of the time, but their needs could not be satisfied. Sales on that account, all lambs, were made at \$10.85@11.25 per hundredweight with one double deck at \$11.50.

As was expected few Texas sheep showed up, the drouth down that way having spoiled the crop. But for that calamity, ewes and wethers would have sold considerably lower. April usually fetches a heavy run of Texas sheep to Kansas City and Fort Worth, and they are invariably price breakers.

A few Southern lambs reached Louisville during the month but they exerted practically no influence on prices. Native pring lambs were unusually scarce.

THE RUMSEY SHEARING PLANT

Six miles from Table Rock, Wyo., J. M. Rumsey has built a very practical shearing plant. The plant is a small one accommodating ten shearers and erected at a total cost of \$1,500.00. It is not equipped with machine shears as hand shearing is always employed. This plant is very complete in all its details and has the peculiar feature that the catch pen is located two feet above the shearing board and holds

only four sheep. When the shearer desires a sheep, he simply throws back a canvas curtain and reaches in and draws one out without having to wrestle with it. The shorn sheep are shoved in a hole under the catch pens. At the north end of the shed is a wool grader's table and seven bins to hold the different grades of wool. The west side of the shed is equipped with a bunk room in which are sleeping quarters for six men. Adjoining this is a dining room large enough to accommodate the needs of the crew. A rather



DEATH CAMAS

interesting feature of this shed is a decoy cage at one end of the alley from which the catch pens are filled. This decoy was made by cutting a hole four feet square in the opposite end of the alley from which the sheep enter. Into this square a wire cage was built that holds two sheep. The sheep are put in this cage and being in the light attract the other sheep up the alley and in that way it is kept filled. The plan for this shed was drawn by John Cullen of Rawlins, but there is some doubt expressed by many of the well informed whether the original plans provided for this "bird cage" decoy for such it has been christened. Rumor has it that this "poultry show"

like arrangement is a product of the fertile mind of Mr. Rumsey. We trust that this disputed point will be settled amicably by the people of Rawlins so that the correct genius may be given his proper credit, while yet he lives.

Anyhow, this is a fine little shed, satisfactory in appointments and economical in operation. It is sheds of this size that appeal to us mostly for there can be no doubt that in most sections the big shed is a thing of the past or will be in a year or two. Possibly along the line of the Union Pacific in Wyoming and in the states of Arizona and Nevada, the big shed may survive for many years even in the face of a one section homestead. In other parts of the country, however, the small individual plant must inevitably come into use.

About 16,500 sheep will be shorn at the Rumsey plant. All the wool is being graded by the National Wool Warehouse, and good work is being done. We venture the prediction that the cost of shearing in this plant, everything considered, will be less than in any Wyoming plant.

NEVADA LAMBS SOLD.

Probably more than 50 per cent of all the lambs in Nevada have already been contracted. These lambs have been purchased by the head at prices ranging from \$4.20 to \$5.10. Most of the contracts have been made for blackface or crossbred lambs. The buyers have been San Francisco parties, including the Western Meat Company, a Swift concern. Also Moffet and Wingfield of Reno have contracted a large number. This firm started to buy in January.

GRADING IN NEVADA.

McGill and Adams Company of Ely, Nevada, had its wool graded at the shearing shed last year. This company was so well pleased with the grading that its entire clip is again being graded this year. This firm for several years has been using machine shears and will continue to do so.

The Boston Wool Market

BY OUR BOSTON CORRESPONDENT

APRIL has been a quiet month in the Boston wool market, and probably less wool has changed hands than for many months. Several things have contributed to bring about this condition,—notably reduced supplies of desirable grades, the extremely high level to which prices have attained, and the unsatisfactory way in which the new clip season is opening in the West. There has been no apparent change in the wool manufacturing industry, but both wool men and manufacturers recognize the possibility that the war may end suddenly. In spite of the oft-expressed belief that high prices will continue for some time after the war closes, there exists a very great degree of anxiety as to what will actually happen. Possibly this is at the bottom of the hesitation as has been shown by both mill and trade buyers during the month and which still exists.

Foreign primary markets are now closed, though small lots of wools are occasionally offered from South America or the Cape Colony. From the former, prices for such stray lots are so high that buyers are not attracted, while those current in South Africa are fully up to the parity of the Boston market. There will be nothing doing in Australia of moment until the opening of the new season at Brisbane on May 29. Late advices from Queensland indicate losses of fully 50 per cent in the number of sheep to be shorn in certain parts of that state, and large losses throughout Queensland are certain. New Zealand and New South Wales have also suffered serious losses, but the Riverina district in Victoria is expected to make a better showing than other districts. This has

especial interest at this time, when the wool trade is trying to size up the situation as it affects the marketing of the new domestic clip.

Early in the month there was something of a flurry in the wool trade over the possibility of the railroad embargoes causing considerable delay in getting the new clip wool East after they were shorn. Happily, traffic conditions have improved, though all the embargoes have not yet been lifted. Determined efforts have been made to straighten out the trunk line congestion on both export and domestic traffic, and when this is done the worst

out of Boston to the New Haven territory. Fortunately, there has been a material improvement during the month.

Much interest is felt in the Western primary markets, though since the early plunge in Nevada and southern Utah, buying has been generally of a spasmodic character. Values have been steadily held, as the growers have been exceedingly firm in their ideas, and have preferred to wait until shearing rather than accept lower bids than they expected would be made. Even when the wools have been shorn, in many case they have been slow to be taken. At the same time, certain scattering purchases at extreme figures have strengthened the growers to get all there is in the market for themselves. For instance, the recent announcement that 35 cents had been paid for some choice light clips of medium wool in southeastern Utah, the highest figure yet reported paid this season for Territory wool, can have but one result.

Buyers are going slowly all over the West, and latest estimates are that total contracts and purchases of shorn wool have not been over 35,000,000 to 40,000,000 pounds. Mill buying has not been as much of a factor as last year, though this competition is still being felt by the dealers. At last advices, scattering clips were being taken in the Triangle on the basis of 28 to 30 cents, in Nevada at 21 to 22 cents for fine clips and in southern Utah at 21 to 22 cents for fine and 26 to 27 cents for medium. In all these cases the scoured cost is estimated at 72 cents or better. In Oregon and Washington, it is estimated that the moderate number of clips secured will



BLACK SHEEP ARE SHORN LAST AT DALEY'S RANCH, WYOMING

danger to the wool trade therefrom will be removed. It was reported early in April that the Southern Pacific Railway had established a rigid embargo against the acceptance of any wool and mohair for shipment East, this appearing to be the worst congested line, though others were not without their troubles also. One case was cited where a shipment of wool from Albuquerque, New Mexico, to Boston was out three months. Curiously enough when the wool did arrive, and it was sought to ship that part of the consignment to the mill that had bought by sample, further delay was caused by the local embargo against shipments

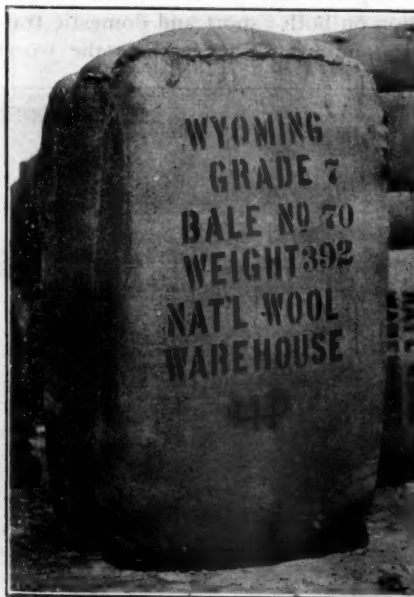
show a clean landed cost of 73 to 75 cents for staple and 70 to 72 cents for fine and fine medium clothing. Some fine and fine medium clips have recently been taken on by Eastern buyers in the vicinity of Billings, Montana, at 27½ cents, but no further transactions in the better grades of medium wools are noted. Shearing is now quite general throughout the Territory wool sections, except in the Soda Springs district and Montana, though operations have been somewhat delayed by the unfavorable weather.

New Territory wools are beginning to arrive here though little has been done as yet in regard to opening and sorting the arrivals. No transfers are yet reported, though the Utah wools that have been examined are said to show up well. Prices are not yet established, though expected to be high. Old clip wools are moving slowly, partly owing to the indifference of mill buyers, but more to the lack of really desirable lots. The most important of recent transfers in old wool have been the sale of 300,000 pounds Montana in the original bags at 29 to 30 cents, the scoured cost being estimated at 73 to 75 cents. Other sales of Territory wool during the month have included 150,000 pounds fine Territory at 22 to 23 cents, or 72 to 73 cents clean; 70,000 pounds quarter-blood Territory at 34 cents; 100,000 pounds Utah half-blood at 73 cents clean; good-size lots of clothing wool at 75 cents for fine and 70 cents for fine medium; 200,000 pounds original Montana at 32 cents, estimated to cost 80 cents for staple and 78 to 80 cents for half-blood; 100,000 pounds Wyoming fine clothing wool at 21½ cents, or 73 to 74 cents clean; and 25,000 pounds Utah half-blood at 25 cents.

Scoured values are quoted at the moment at 80 cents and above for fine staple, 70 to 75 cents for three-eighths-staple, 78 to 80 cents for half-blood staple, 67 to 68 cents for quarter-blood staple, 73 to 75 cents for fine clothing and 70 to 73 cents for fine medium clothing. In the lack of actual transaction, these quotations may be said to be partly nominal.

There has been only a moderate movement during the month in scoured Territory wools, as the better grades have been selling too well in the grease to make it advisable or necessary to scour them, while the plentiful offerings of the lower grades of foreign scoureds has proved to be too strong a competition for the same qualities in the higher-priced domestic wools. Latest quotations are 75 cents for choice fine scoured, 70 to 73 cents for average fine, 67 to 70 cents for fine medium, and 55 to 65 cents for stained and defective wools.

Pulled wools have sold steadily,



GRADE 7 MEANS THAT THIS BALE CONTAINS ALL QUARTER BLOOD WOOL

though the principal demand has been for combing wools in the grease for the worsted mills. As a rule any lot of wool showing staple has commanded a ready sale, and this has resulted in some improvement in the demand for scoured pulled, though nothing like the business reported a month ago. Recently, there has been a good demand for the finer grades, both Eastern and Western pullings attracting more attention. Latest quotations for Eastern pullings are 72 to 80 cents for fine A supers and extras, 66 to 70 cents for A supers and 65 to 67 cents for B supers. Western

pullings are quotable at 66 to 68 cents for fine A supers, 63 to 66 cents for A supers and 62 to 64 cents for B supers. Combing pulled wools are selling in the grease at 58 to 60 cents for fine combing, 57 to 58 cents for medium combing and 53 to 55 cents for low combing.

Shearing has also been delayed in Ohio and the other fleece wool sections by the unfavorable weather, but this has not served to dampen in the slightest degree the efforts of the growers to get extreme prices for the new wool. Buying has been going forward slowly, as buyers have not been willing to pay what was asked, though some of the choice clips have been sold at 30 cents for fine and 35 cents for medium. Michigan growers are holding their best medium clips at 35 cents, while in Kentucky, 41 to 42 cents is asked.

In this market, a little Ohio half-blood combing was sold early in the month at 37 cents, and fine unwashed Delaine at 34 cents and 35 cents. During the next two weeks the market was at a standstill, the only sales being odds and ends. Last week, holders moderated their asking prices, and several hundred thousand pounds of fleeces changed hands on the basis of 37 cents for fine washed Delaine, 32½ cents and 33 cents for fine unwashed Delaine, 36 cents for half-blood combing and 39 cents for three-eighths-blood combing. Current quotations on Ohio fleeces are 37 cents for fine washed Delaine, 33 to 34 cents for XIX and above, 32½ to 33 cents for fine unwashed Delaine, 29 to 30 cents for fine unwashed clothing, 36 cents for half-blood combing, 39 cents for three-eighths-blood combing, 38 cents for quarter-blood combing, and 30 to 33 cents for medium clothing.

A sharp demand has developed during the month for New Zealand and South American crossbreds. Sales of the former have been limited to some extent by the shortage in 44s and 46s, these two grades being most wanted. Last sales were at 47 cents, 36s being quoted at 40 to 42 cents, 40s at 41 to 43 cents, 50s at 47 to 49 cents and 56s

and 58s at 48 to 50 cents. Buenos Aires Lincolns have sold at 40 cents, but some holders are asking as high as 41 to 42 cents for their best skirted wools. Straight quarters are quotable at 43 cents and high quarters at 44 to 45 cents.

Australian and Cape Merinos have continued to move freely, several thousand bales changing hands during the month. Australians have brought 85 to 87 cents clean for combing 70s, 85 cents for 64s and 70 to 80 cents for clothing wools. Cape wools have sold in the grease at 75 cents clean for combing, 72 to 73 cents for French combing and 70 cents for short combing.

There has been considerable activity in scoured foreign wools, Australian scoureds selling at 65 to 73 cents, with the best resoured wools at 75 cents. Cape scoureds have sold at 60 to 65 cents for the best. There is a wide range in the offerings of defective and inferior foreign scoured, and prices are difficult to quote for this reason.

Arrivals of foreign wool have held up well. Total receipts of wool at the port of Boston for the month of April, as compiled by the Boston Chamber of Commerce, were 36,803, 224 pounds, including 14,738,851 pounds domestic and 22,064,373 pounds foreign. This compares with 44,832,516 pounds for April, 1915, of which 5,374,870 pounds were domestic and 39,457,646 pounds were foreign.

Since January 1, 1916, aggregate receipts have been 189,669,263 pounds, including 56,620,557 pounds domestic and 133,048,706 pounds foreign. This compares with 140,661,740 pounds for the same period in 1915, of which 43,890,082 pounds were domestic and 96,771,658 pounds foreign.

Shipments of wool for April were 34,069,053 pounds, compared with 21,899,374 pounds for April, 1915. Total shipments from and including January 1, 1916, have been 137,614,395 pounds, compared with 86,732,582 pounds for the same period in 1915.

Many of our members have still forgotten to pay their dues.

USE OF RAMS IN PASTURES.

A writer in the New Zealand Farmer gives the following data regarding the use of rams in pastures:

"Just how many ewes a ram can serve in a season has never been satisfactorily answered. With large flocks 2 per cent of rams are considered necessary to ensure a good percentage of lambs, while on clear paddocks of medium area one ram to 60 or 70 ewes will prove sufficient. With small enclosures a powerful ram will serve up to 90 or 100 ewes. Under such conditions a handful of grain or other artificial food is well spent.

"Some shepherds err in two direc-

sible to say how many ewes have aborted; besides the younger lambs have little chance of thriving, owing to being knocked about at shearing. When weaning comes they are too young to fend for themselves, and at all times are an eye-sore in that they spoil the evenness of the flock.

"A good plan adopted by some is to select only half, or 1 per cent, of the best rams required for the flock, and put these out first. Then at the end of two or three weeks turn in the balance. The object is to make full use of the best, and thereby improve the flock. To those who have the necessary accommodation by way of small paddocks there is still a better way of



THE NEW SHED AT WALCOTT, WYOMING

tions—putting out too many rams, and leaving them out too long, thinking to make sure of not missing a ewe. Most sheepmen know you can run a few ewes among a mob of rams with impunity, as ne'er a lamb will be got. Thus, the effect of using too many rams, or leaving them with the ewes for a lengthened period, has the same effect, only in a lesser degree. Keeping even 2 per cent of rams out more than six weeks acts in the same direction; besides, six weeks is quite long enough for lambing to last. I admit that by letting them remain for eight or ten weeks a few, possibly 2 or 3 per cent of lambs, will be added, but it has to be remembered it is impos-

making the best use of rams, and that is by selecting the ewes into lots, and then selecting rams that are likely to produce the best results.

"Another matter that does not receive the attention it deserves is to see that the rams are following up the ewes. The best plan is to muster up the ewes and turn the rams in the mob. Then they will have a chance of distributing themselves, so that some will follow up the ewes when they disperse to feed. Even then if the rams are fat and lazy, and the weather hot, it will be found that some will hang about the fence or water. Therefore it is necessary that a rough muster be made daily until it is seen

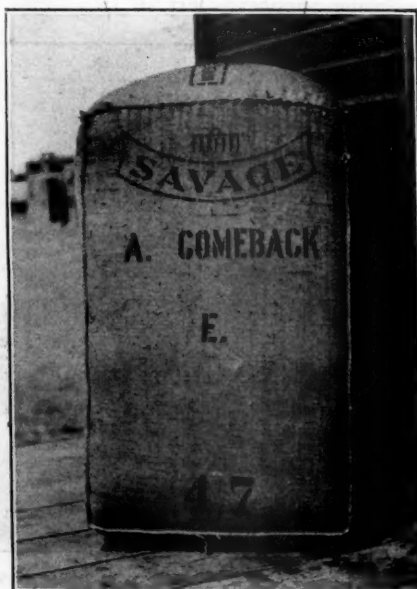
the rams have gone thoroughly to work. Some will say there is nothing new in the foregoing hints, as they have always got good percentages without such trouble. Besides, they are such small matters that they cannot have much effect. The answer to this is that they can bring no proof to show that by using greater care they would not have added a higher percentage and have also improved their flocks. For the 'knowall,' or those who consider such small matters of little value, we would remind them that it takes four farthings to make a penny. However, as already mentioned, the main object of these hints is an endeavor to assist the novice, and also those who have lived long enough to be able to recognize there is much they do not know."

THE FIRST SHEARING MACHINES IN THE UNITED STATES

Recently we had the opportunity to talk with a gentleman who has had very wide experience in handling shearing machines in western United States. In fact it was through the solicitation of this gentleman that shearing machines were introduced into this country.

Nineteen years ago, the first demonstration of machine shearing was made at Fort Steele, Wyoming, on the sheep owned by Cosgriff Brothers. The machine used in this demonstration was a Wolseley, then the leading machine of Australia. From Fort Steele demonstrations were made at other points in the country. It is interesting to note that while this first demonstration of shearing machines was at Fort Steele, hand shears have been used continually at that point up until last year when machines were established near there at Walcott. The first machine shearing plant in this country was established at Casper, Wyoming, in 1897, and at that point 35,000 sheep were shorn. This was a twenty-machine Wolseley plant, which after shearing was finished at Casper was shipped to Soda Springs, Idaho,

by express, at which point 65,000 sheep were shorn at the Merrill shed. From Soda Springs, this machine plant was shipped to Montana and, arriving there on the twenty-first day of June, shearing was started for the Sun River Land and Live Stock Company near Great Falls, Montana. These people sheared 45,000 sheep with the machines, finishing on July 6, 1897. The plant was then moved to Black Eagle Park, Great Falls, Montana, where it was run by electricity and 25,000 sheep were shorn for the Great Falls Meat Company and H. H. Nelson. At the close of shearing at the Black Eagle Park, this plant



A BALE AT WALCOTT, WYOMING

was sold to the Sun River Land and Live Stock Company and has been in use by them ever since. The same plant was used by the Sun River Land and Live Stock Company last year and gave very excellent service and will be used again this year. Altogether the first year this plant was used, it sheared 143,000 sheep and it is remarkable that many of the parts of the original plant are still in good repair and bid fair to be of service for several years to come.

The next two machine shearing plants to be sold in the United States were sold in the state of Idaho, one going to George W. Gorton, of Soda

Springs, Idaho, and the other to J. D. Wood of Spencer, Idaho. These plants have both been used very satisfactorily for a long time and were installed in 1898. About this time Miller and Lux installed a plant in California. In 1898 and 1899, thirty machine plants were sold in the state of Montana alone. In fact as soon as machine shearing was introduced in Montana, practically the whole state took it up and for the last fifteen years about all of Montana's sheep have been shorn by machines.

FEWER TICKS IN UTAH.

We visited several of the Utah shearing sheds while shearing was going on this year, and have made it a special point to examine as to the number of ticks in the different flocks. All of the flocks that we have seen have a few ticks, but in no instance were there many, and practically all the owners report fewer ticks this season than they had last season as a result of the general dipping last fall.

On the other hand, however, there is a very material increase in the number of lice on Utah sheep. In some cases these lice have become so numerous as to actually cause considerable injury to the sheep, particularly on the coarse wools. Sheepmen advise us that lice have been increasing gradually for several years, and that they have more of them this year than ever before. While the dipping seems to have reduced the number of ticks, it certainly has not eliminated the sheep louse, and the louse is a far more serious pest than the tick.

SHEEP PELTS HIGH.

The Boston market reports give sheared sheep pelts as selling from 80 cents to \$1.00 each with the better sorts bringing around 95 cents each. A considerable number of shorn pelts are now being offered in that market. Pelts with the wool on are scarce and buyers plentiful and are selling at prices around \$2.50 each for the best pelts.

The Reed Grasses And Their Relatives

By ARTHUR W. SAMPSON

THE reed grasses, known botanically by the name *Calamagrostis*, are closely related to redtop and porcupine grass, the characters and forage value of which have previously been discussed in the National Wool Growers. A large number of different reed grasses are found in western ranges but many occur so sparsely as to be of but little economic value. A few, however, furnish a large amount of forage.

In all, there are 130 different kinds of reed grasses, some thirty-eight of which are found west of the one hundredth meridian. Some of the more valuable kinds occur in the foothills, but most of them are met with at medium elevations. This group of grasses is characterized by having single flowers in a cluster. Then too, at the base of the flowering glume there is a small hairy appendage; in addition to this the flowers are usually surrounded at the base with a ring of soft hairs.

Pine Reed Grass.

(*C. Rubescens*.)

Description and Distribution.

As the common name implies, this grass grows in the pine belt, almost invariably in association with yellow pine. Occurring, as it does, in dense stand and in conspicuous abundance in the foothill ranges, it is about as well known to stockmen as any grass within its range. It may be recognized by its perennial character, and the abundant and well developed creeping rootstocks which give it the characteristic closely matted sod or turf. The culms or flower stalks, one to three feet tall, are provided with rather flat, soft, light green leaves, usually three in number, as pictured in Fig. 1. The flower heads are pale green in color.

This grass is confined chiefly to the Rocky mountains. It ranges from Manitoba to British Columbia; into Colorado and on to California and Washington.

Growth Requirements.

The deep and spreading-root system

is indicative of its ability to grow in dry soils. In way of drought resistance, it is barely second to none. Even on shallow soils it reproduces fairly well and seldom gives way to other herbs. In the drier situations the flower stalks begin to appear about July 15. In general, the seed crop is ripened and scattered by about August 20. The seed habits are exceptionally strong.

Forage Value.

The herbage of pine reed grass is most likely relished in the spring of the year when it is eaten with gusto by all classes of stock. Being confined to ranges of medium elevation, it furnishes forage for sheep shortly after



FIG. 1. PINE REED GRASS IS PROBABLY THE MOST COMMONLY MET WITH IN THE YELLOW PINE FORESTS OF THE NORTHWEST.

lambling. Since it is succulent and tender at that time, sheep do very well indeed on it. Later in the season, when the plant begins to mature, the herbage becomes somewhat tough and is not readily grazed by sheep. Horses seem to crop it however at all seasons.

In the autumn, after the rains come on, the leaf blades are again readily eaten by all classes of stock. It is best, however, to plan to graze the pinegrass lands fairly early in the season before the leafage dries up.

Unlike many grasses, pine reed grass withstands a remarkable amount of trampling, so there is little danger of injuring the stand by moderate early grazing.

Bluepoint.

(*C. Canadensis*.)

Description and Distribution.

This is a stout, erect, tall grass, differing markedly from the one just described, in that it occupies wet, boggy ground or low, moist meadows. Its best growth is attained in cool mountain lands, and occurs commonly throughout the Rocky mountain region. In the more favorable situations the seed stalks attain a height of from three to five feet. The leaves are a foot or more long, wide and somewhat rough. The panicle or seed head, as shown in Fig. 2, is oblong, open and somewhat spreading. Reproduction takes place extensively by shoots originating from rootstocks.

Growth Requirements.

Bluepoint is not particularly tolerant to shade. Further, the wide, flat leaves and shallow roots all indicate that it requires a medium to abundant supply of moisture. As already stated, it never occurs in the dry soils in which pine reed grass delights to grow. Being confined to the moister and cooler soils, the seed crop does not generally begin to ripen until about August 15. The seed crop, like most reed grasses, has high fertility.

Forage Value.

Owing to the rank growth, the herbage is better suited to cattle and horses than to sheep, though the latter consume the leaf blades fairly closely prior to full development of the plant. Speaking of the forage value, Prof. J. S. Gould stated that: "It constitutes about one-third of the natural grasses on the Beaver dam meadows of the

Adirondocks. It is certain that cattle relish it very much, both in its green state and when made into hay, and it is equally certain that the farmers who have it on their farms believe it to be one of the best grasses of their meadows." The writer has frequently verified this statement in numerous localities in the northwest.

Other Reed Grasses.

Four reed grasses, other than those already considered, are of high value on the range. They are hairy reed

grass, for hay, the thin tender leaves curing very satisfactorily.

Montana reed grass ranges from Wyoming to Canada, and west to the Pacific, thus occurring over a vast territory of valuable native grazing land.

This is one of the dry-land grasses, and it naturally follows on bench and "scab lands," on sandy plains and hillside. In Wyoming, it is met with between 5,000 and 8,000 feet.

This grass is relished equally well

Sierras it is second to none in palatability and nutritiousness. It prefers medium moist habitats and probably on that account remains green and tender throughout the entire summer and autumn grazing season. Stock feeding on Brewer's reed grass come off the ranges in good flesh, and put on gains of a solid or "hard" character which, for example, is not readily lost when the animal is shipped.

Slender-headed reed grass in the West occurs throughout the Rockies, being found commonly in Colorado, western Wyoming and west-central Montana. It is confined to moist meadows and open parks where it grows in rich deep soils.

Owing to its rank growth, it is best suited to cattle and horses by which stock it is grazed with gusto. Sheep consume the herbage with relish, chiefly in the forepart of the season. Later, as stated, it becomes rather too coarse.

Mountain Timothy.

(*Phleum Alpinum*.)

Description and Distribution.

Mountain timothy is closely related to cultivated timothy, of course. These two species are not uncommonly confused. While they have a number of characteristics in common, they may readily be distinguished by the following: Cultivated timothy usually grows from 2 to 4 feet tall, while mountain timothy seldom attains more than half that stature; the seed head of the latter, not usually much over an inch long, is ovate-oblong in shape, while the head of cultivated timothy is distinctly cylindrical in shape and from 2 to 6 inches in length.

Like the well known domesticated form, mountain timothy grows from the root year after year. The seed head is usually purple in color, and provided with short awns, giving it a rather bristly appearance.

The distribution is remarkably wide, occurring throughout the West, but confined strictly to the high summer ranges.

Growth Requirements.

Mountain timothy is distinctly a marsh plant of turf-forming habit. It occurs in moist meadows and swales



IMPORTANT REED GRASSES

Fig. 1. From left to right they are: Hairy Reed Grass, Montana Reed Grass, Brewer's Reed Grass, Slender-headed Reed Grass and Canada Reed Grass.

grass, Montana reed grass, Brewer's reed grass and slender-headed reed grass. A typical seed head of each (which is the part by which grasses are chiefly distinguished) is shown in Fig. 2.

Hairy reed grass occurs in meadows, open forest lands and in moist rocky soils, mostly throughout the West at medium elevation. It is relished by all classes of stock, but owing to rather rank growth, it is best suited to cattle and horses. In Alaska it is often cut

by horses, cattle and sheep. It is hard to name a more desirable grass when young. As an early spring sheep feed, it is very superior. It is practically the only reed grass representative of forage value in the prairie region.

Brewer's Reed Grass.

This grass is confined to the northwest where it occurs in mountain meadows and open woodlands between about 7,000 and 13,000 feet elevation.

Brewer's reed grass must be listed in the category of the choicest of summer range plants. In the northern

and is met with around springs, seeps and along moist stream banks. The stand is almost always quite dense and since the roots bind the soil firmly it withstands an unusual amount of trampling and abuse. Such grass-like marsh plants, such as sedges and rushes, often give mountain timothy the keenest competition for dominance over the soil. These plants, however, seldom succeed in crowding out the timothy once it gains a good foothold.

The flower stalks begin to appear about July 15, and by about August 20, the seed crop begins to mature and drop. The fertility of the seed is above average. In northeastern Oregon, I tested several seed samples for three successive seasons, and at no time was the germination strength less than 50 per cent. In most cases the germination power went somewhere around 75 per cent. However, except where the stand is sparse, reproduction takes place, chiefly by means of shoots from the established plant. So dense is the older stand, in general, that seed reaches the mineral soil with difficulty. In the denser mountain timothy stands, therefore, seedlings are seldom found. On the other hand, wherever the soil is "opened up" and moisture conditions are favorable, seedlings are of common occurrence.

Forage Value.

As a forage plant mountain timothy ranks high as compared with the average moist meadow or bog plants. It is a trifle more succulent or "watery" early in the spring than desired, but as the season advances it develops more substance—more dry matter per unit of green weight, and furnishes a large amount of nutritious and palatable feed. All classes of stock are fond of it. Remaining green, as it does, until killing frosts prevent further growth, it is eaten ravenously even late in the season. While no chemical analysis has been made so far as the writer is informed, it is probable that in nutritive qualities it is similar to the cultivated timothy which is known the world over as a superior hay grass. It withstands trampling remarkably well owing to the unusual entangle-

ment of fibrous roots which bind the soil firmly.

THE WALCOTT

SHEARING SHED

Within 300 yards of the depot at Walcott, Wyoming, the Walcott Shearing Company has erected a very complete Australian shearing plant. This is one of the best plants erected in the United States, and it is said that few in Australia are equal to it. It is a

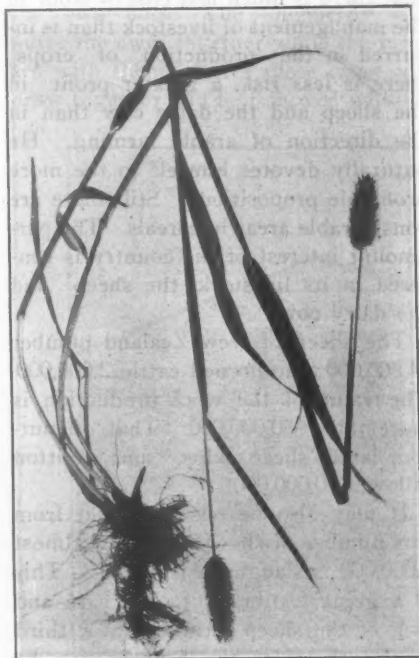


FIG. 3. MOUNTAIN TIMOTHY—A HIGH MOUNTAIN GRASS WHICH REMAINS SUCCULENT AND TENDER THROUGHOUT THE GRAZING SEASON.

twenty machine plant and about 65,000 sheep will be-shorn there this year. Those who will shear at this plant are the Leo Sheep Company, The Savage Sheep Company, The Nelson Sheep Company, Bana Meadows Sheep Company, and David Webb. Shearing at this plant began the 21st of April and should finish about May 15.

The shearing machines in this plant were installed last year in the old plant, which adjoins the new one. The old shed is used as shelter for unshorn sheep and will accommodate about 5,000 head. The shorn sheep are all passed down a chute and are stored

underneath the new shearing shed. At this plant about 140 sheep were being shorn by each shearer and the number is expected to be increased as the men become more used to the work. All the wool in this plant is being put up under a modified Australian system. The bellies are shorn and packed separately, and the fleeces are being skirted very lightly. The classing is being done by a Mr. Chilingsworth who recently arrived from New Zealand to handle the work. All the wool is being baled.

It would be hard to excel this plant in any particular, and it will prove a great benefit and convenience to the woolgrowers of this particular section.

SHED AT WAMSUTTER, WYO.

Stratton Brothers at Wamsutter, Wyoming, have a very good shearing shed that has been used some years. It has stalls for twenty-six hand shearers, and turns out about 50,000 sheep a year. Last year a grading room was added to this shed, and this year all the wool is being graded under direction of the National Wool Warehouse. A peculiar feature of this shed is a large trough fastened to the front of the shearers' pen. When the sheep is shorn, the shearer picks up the fleece and lays it in the trough. From there it is taken to the grader's table by a boy.

UTAH WOOL GOES WEST.

Mr. E. J. Cummings, of Heber, Utah, contracted his wool in March to a Philadelphia house. His sheep were shorn at Lofgren in April, and his clip was sold to the Portland Woolen Mills. We saw this clip and think it is one of the best in Utah. Eighty per cent of it is three-eighths blood of excellent character, shrinking around fifty-three per cent. So far as we can learn, this is the first Utah wool to go to the Coast for consumption. This Portland mill, however, uses about one and a half million pounds of wool each year.

Sheep Farming In New Zealand

Address By EDMUND CLIFTON of New Zealand

MR. president and members of the National Wool Growers' Association: My address to you gentlemen is simply an account of my experience in New Zealand with a description of the New Zealand system of sheep farming.

It came to me that the livestock of New Zealand has claimed my life's interest. So long ago as 1872, I was superintending sheep and cattle properties known in that country as Stations or Runs; here I understand it is the "Ranches." In later years, I was Chief Inspector of Stock for the Dominion and Director of its Experimental Stations and on these establishments the sheep are all important. I am mentioning this that I may ask you to realize the appeal that the livestock, the domestic animals of the farm, extends to me.

Let me say that New Zealand is an island country; it is actually divided into two main islands the north and south, with an immense coast line. In area New Zealand is 104,000 square miles. The climate is mild. As an indication of this, the livestock of the farm are on the pasture or in the field the whole of the year. There is practically no housing or stabling or artificial feeding except for stock for some special purpose as for preparation for agricultural or pastoral association shows or fairs.

The rainfall is liberal. It may be taken as 37 inches. It is also fairly distributed during the year. The winter is not severe, but snow storms in the high mountain districts cause, in certain years, severe losses in livestock, and particularly this affects sheep.

It will be also readily recognized that in a country lying almost north and south for a distance of upwards of 1,200 miles, that there are considerable variations of climatic conditions.

New Zealand is a country very singularly suited to the domestic animals of the farm, its natural features, its climate, its fertility of soil, the freedom of the livestock from diseases that form

so serious a militation in other lands, the absence of predatory animals, and to a great extent the absence of sufficient population,—it is but 1,050,000—all bring about conditions that cause this country to be more interested in livestock than in the operations of the arable farmer.

The farmer of New Zealand realizes that there is much less cost of labor in the management of livestock than is incurred in the production of crops; there is less risk, a greater profit in the sheep and the dairy cow than in the direction of arable farming. He naturally devotes himself to the more profitable propositions. Still there are considerable areas in cereals. The paramount interest of the country is centered in its livestock, the sheep and the dairy cow.

The sheep of New Zealand number 24,800,000; the horned cattle 2,000,000. The value of the wool production is more than \$50,000,000. That of mutton, lamb, sheep skins, and mutton tallow, \$40,000,000.

It may also be observed that from this number of sheep a draft of almost 8,000,000 is slaughtered annually. This is a great testimony to the care and skill of the sheep farmer, that a third of the sheep of the country can be disposed of. Further the prices for New Zealand mutton and lamb are the highest that are realized on the London markets.

The introduction of refrigeration that permitted the exportation of meat from New Zealand and provided for its entrance as a competitor in the meat supply of Europe, is the greatest epoch in the history of the sheep industry in New Zealand.

In the earlier period, wool was of paramount importance, for apart from the unimportant domestic consumption, the only means of disposal of the carcass was that of boiling down for tallow. Since refrigeration has been introduced, the wool and the carcass receive more even consideration. There yet remains in the minds of flock

masters of New Zealand, the ingrained and traditional thought for wool, this is definite in all the flocks of that country. Those sheep exhibited from New Zealand at the World's Fair at San Francisco are examples of this. The Lincoln sheep were so far above the conception of the judging that they did not receive the recognition that was due them. Those massive sheep, the heavy fleece of strong, lengthy, lustrous wool in clean well separated locks, combined to present a Lincoln ram of the highest type. The superiority of these sheep caused them to be passed over. The chief awards were allocated to a type of Lincoln that was discarded in New Zealand more than twenty years ago. The breeder of these sheep may well be disenchanted at the reception of those Lincolns in America.

The Romney, the foremost breed of sheep of our country, attracted the attention that they deserve and the honors of the chief awards were gained and merited. The Corriedale, the breed evolved in New Zealand, the sheep of all attraction here, with its splendid fleece and great conformation provided a valuable standard to the sheepmen who were so fortunate as to see them in the perfection of condition at the competitions at the Panama-Pacific Exposition.

These breeds of sheep I must refer to later, and now return to the earlier stage of sheep farming in New Zealand.

Some sheep were introduced into New Zealand before 1850. In the later fifties and sixties large numbers of Merino sheep were imported into the country from Australia. In the passage of 1,200 miles in sailing vessel and later in small steamers, severe losses of stock were often sustained. The South Island of New Zealand received practically the whole of the earlier importation. Its natural grasses afforded immediately available pasturage. The North Island was not so available. The native grasses were not generally

in great areas. There was a large extent of land clothed with fern (bracken) and brush the presence of an aboriginal population much greater in number than that of the colonists, with the complication that a large proportion of it—The "Maori"—was hostile to the Europeans, all tended to retard progress in the north. This has all passed away. The North now leads in population, in production of sheep and dairy herds.

The earlier times, of the sheep industry of New Zealand, were those of utmost simplicity of all farming and grazing conditions. The indigenous grasses provided generous pasturage, the occupation of land was under liberal regulations. Those pastoral or grazing properties were holdings of huge extent. A river or other natural boundary assisted in the separation of the flocks from those of adjoining owners. There was no herding. Some attempt at separation of adjoining flocks was made, by what was termed boundary keepers, men who attended to an insecure boundary and moved the sheep back where there appeared a probability that flocks might mix. A great objection to this was the effect of the disturbance on the sheep. The Merino when turned back from the grazing would travel long distances before again settling to graze. This was rapidly overcome by the erection of wire fences.

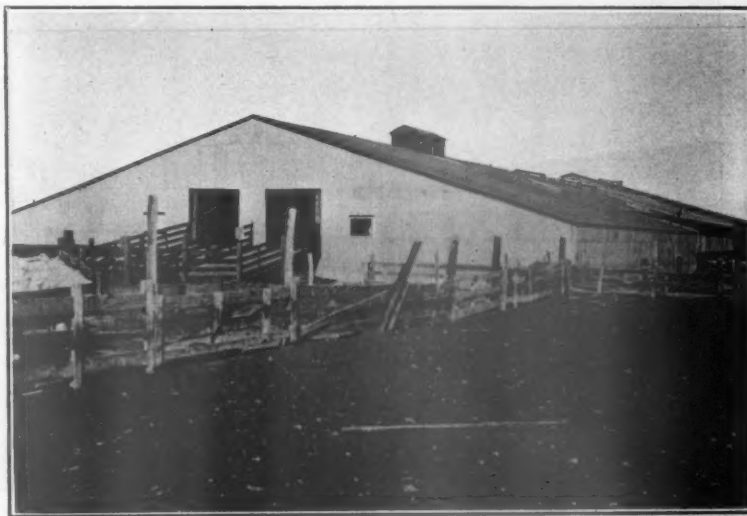
The general management on these sheep stations or runs—called ranges here I believe—is that of leaving the sheep as undisturbed as possible. The work will begin in spring, with us in October. The breeding flock of ewes will be gathered, or in colonial terms "mustered," the lambs marked in November, the dry flocks, "wethers," and hoggets "shearlings" will be brought in for shearing. In the yards, that are provided with suitable drafting races and gates, the sheep will be separated, taken to the shearing shed, then shorn. They will probably be at once dipped and taken back to their range or enclosure. The ewe flock will follow to the shed and the shearing. The whole of the flock will probably be back on

their particular part of the property by the middle of December. There these sheep will remain until the end of February. At that time the dry flock will be brought in, the drafts of sheep that are to be sold as fat or as stores or feeders, will be separated, the sheep generally sorted out. The ewe flock will be gathered also, and if not already effected the lambs will be taken out, the ewes sorted, or in our term drafted.

In March the rams will be placed in the ewe flock. The shepherds will move the ewes together while the rams are with them. Later these rams will draw together and be removed without

white clover. The great pastoral properties are passing away. The popular demand is that a large area in the hands of an individual is undesirable. The reign of the "Sheep King" is passing.

While the Merino was the sheep of the hill country, it was recognized that it was not suitable for the lower lands and richer plains. The Merino resented close enclosure, it failed to thrive, as compared with the crossbred, hence this breed was displaced with the crossbreds and the British Long Wools that are more adapted to closer confinement and richer pasturage. The use of the long wool ram to cross with the Mer-



JOHN HAYS' SHED AT BITTER CREEK, WYOMING

much interference to the flock. From about March to the following October, the sheep will be disturbed as little as possible. In later days, this system has undergone many modifications. The crossbred sheep have invaded the districts, when once there was only the Merino. This crossbred requires greater attention than the sheep it displaced. Greater facilities are now provided on these sheep properties in the direction of subdividing fences. Sheep are moved from one enclosure to the other as grass may be required to be grazed; the pasture has been in many districts improved by the introduction of exotic grasses, chiefly Ryegrass, Cocksfoot (or Orchard grass) and

ino ewe became general. This first cross produced a type unequalled for wool and meat, then the difficulty appeared, how to avoid going further. The greater approach to the long wool, the less suitable the sheep for the then conditions when wool of the Merino type was of higher importance. It came from this cause that the Corriedale was evolved and to the enterprise of a flock master, Mr. Little, this is due. This will be referred to later.

1881.

We now come to the period when refrigeration was introduced. This is the turning point of the sheep farming of New Zealand.

This and the co-operative dairy fac-

tory system have brought unexampled prosperity to the farmers of New Zealand. Refrigeration works number seventy-two, and are increasing every year. The co-operative dairy factories are 480.

As already stated, the great sheep properties are being subdivided. The surplus stock is no longer boiled for the tallow, it is exported in the form of mutton and lamb. If it be that certain sheep country is unsuited for fattening, such stock is sold to farmers who make a business of buying feeders to fatten for export.

On the farm properties that may vary in size from 200 to 2,000 acres,—the first probably all arable land, on

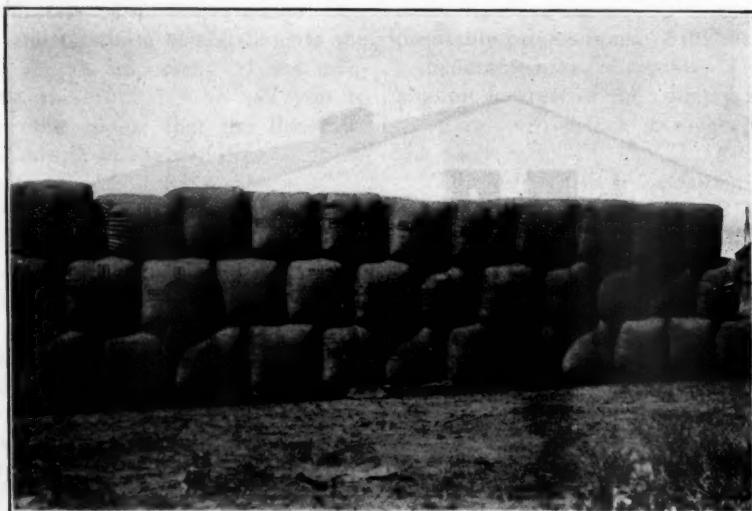
tion. The stock will be crossbred ewes. The lamb preferred is the product of the Southdown or Shropshire with a preference to the first. It will also be understood that a great proportion of the lambs exported are from long wooled sires. As an instance of what may be done, 2,300 sheep, stores or feeders, were fattened on thirty-seven acres of rape and seventeen acres of turnips, with a run off on rough pasturage. It is found most desirable to afford sheep on turnips access to some roughage in the form of pasturage or the provision of hay, the pasturage is the more usually availed of as the cheaper. This system has proved most profitable. It has materi-

cess is performed under contract, the preliminary drafting, the shearing, the classing, transportation, are all under skilled supervision, and often whole clips are bought from the farmer.

The prosperity of the sheep industry is so assured that high priced land is now devoted to sheep. It is lately noticed that \$500 per acre has been the purchase price for land in a favored district. I know the locality. It is undoubtedly of the highest fertility, and of course the whole farm is available for the provision of fodder crops. The notification of \$200 per acre for land of which the greater proportion is hill, with an estimated stock-carrying capacity of two sheep to the acre, was also observed.

The system of shearing may be of interest to you. It is here that the attention of the sheep farmer's year is concentrated. On the large pastoral properties, apart from fencing, the chief improvement, indeed the most important is the wool shed and its adjoining yards. These buildings are, after many years of experience, now standardized. A very usual form is that of a capital T, the long top of the letter is set apart for the sheep to be shorn, with a usual capacity of the number of sheep to be sheared in a working day. The floor is of battens. The whole is suitably divided into pens. The use of the shearing machine is universal. The rest of this top of the T is the shearing board, or the part on which the shearers operate. The leg, or perpendicular part of the letter accommodates the wool table on which the fleece is thrown and spread for the fleece rollers; beyond that in a large shed is the table to which the rolled fleeces are passed for the inspection of the wool classer, conveniently arranged to this are the various bins or divisions to which the wool classer directs the conveyance of the different fleeces. The wool press will be next to these bins; and nearer the door at the foot of the T, the pressed wool bales are placed for removal for storage or other destination.

In certain large sheds a hydraulic press was part of the equipment. In



BALED WOOL AT WALCOTT, WYOMING

the larger a proportion will be hill and unploughable—the sheep is the chief reliance. (This is apart from the dairy districts.) The usual system is that crops, wheat, oats, will be grown on a portion, there will be a large part in fodder crops as Swedes (hard turnips), soft turnips, Rape, Italian rye, a further part will be in perennial rye, cocksfoot, and clover. This is termed permanent pasture, although it often comes into the plough in its turn, I do not like to say in rotation. The sheep will either be bred on the farm or some will be purchased or the entire stock may be so bought. The proportion decided upon will be for refrigera-

ally increased the number of sheep in New Zealand. The ranch flock surplus sheep is readily sold to the grazier; he in his turn sells to those who make a business of buying sheep and lambs for refrigeration, or he may at fair rates have his stock refrigerated and consigned on his own account for sale on the London market.

A further facility is being afforded to the smaller sheep owner; what may be described as community shearing sheds are being established. These are situated in suitable locations. They may be erected by local share holding farmers, or by companies interested in livestock and wool. The whole pro-

this two bales one above the other were dumped into a space less than the sixth of a single bale before the operation. This is the more usual work at the port of shipment.

The first work with sheep at about shearing time is the removal of tags or dags from the tail and breech of the sheep. It is against all regulations to permit an undagged or untrimmed clean sheep to come into the hands of the shearers on the shearing board. That board is washed and scrubbed at least once a week, usually more frequently. The sheep are drafted before entering the shed to assure that wethers, ewes, hoggets (shearlings) will be as much as possible separated.

Two shearers usually catch the sheep from one pen. It is insisted upon that sheep are carried by the shearers from this pen to the shearing stand. It is not permitted that a sheep be dragged by the leg, and by that limb thrown with a wrench on the floor. The shearers remove the wool from the belly. This is taken to a bin set apart for this wool. The fleece is shorn without a break, second cuts in the wool are inadmissible. The shorn sheep are passed out of shed by the shearers into individual pens, where they are inspected and counted. They are then branded, probably dipped, and returned as quickly as possible to the field or range.

The Care of Wool.

The fleece is taken from the shearing board without a delay. The pickers gather it in their arms; at the wool table with a quick cast it is spread evenly as a cloth upon the wool table. The wool rollers then skirt the fleece, the removal of the stained portions, the light wool of the neck are taken from it. This is effected under the supervision of the wool classer. This skinning is the first essential. It is often apparently excessive. It may, however, be pointed out that many of these large sheep properties are owned by or controlled by those who are experienced wool men who have been engaged in the business of buying and selling wool, who have been trained that hardest of competitions, the

wool trade. It is on such properties that this skinning is the most severely performed, remember, it is under expert supervision; it is far from reckless or careless.

The fleece while on the wool table is carefully folded, not tied. It is examined there or on a separate table by the wool classer who is an expert. His trained eye enables him at a glance to direct the proper bin or division of the class to which that fleece belongs.

The sheep should come to the shed as wethers, ewes, hoggets. The wool of each will be divided into at least three classes. Fine, medium, strong,

other experiences, those of our most successful sheepmen who most consistently class their wool. It is recognized that unclassified wool has to take its chance; it may secure a handsome price when wool is in strong demand; it is neglected under other conditions. Classified wool is presented at its best, in a form that buyers, can readily appraise its true value. It is undoubted that over a series of years, wool-classing is profitable. It is the classed wool that establishes itself and the brand of the grower at the wool sales.

The use of the wool press is universal; there is a pride in the output of neatly pressed wool bales. We know



SACKED WOOL ALWAYS LOOKS RAGGED AND IS MEAN TO HANDLE

with the invariable separation of weak, stained, cotted or generally inferior wool. The skirtings are often separated into firsts and seconds.

In the smaller flocks, the number of classes is not so large, the practice is to maintain the separation of wether, ewe and hogget, and to class into fine and strong, in a few well-selected flocks where one type of wool is grown, or where the brand is well known, the classing may be only that of wether, if any, the ewe and the shearling; the stained class cannot usually be dispensed with.

It is admitted that it is claimed by some that classing is not profitable; there may be occasional experiences to support this view, still there are the

the container is not all, still it sets off the contents.

In the process of packing wool, care is exercised to avoid the inclusion of vegetable fibres; these militate very seriously against effective dyeing of the cloth.

This description of the care of wool may be wearisome but it is on this that the credit and profit of the wool grower rests.

Breeds of Sheep.

There have been introduced into New Zealand sheep of every breed; after trials those remaining in general use are:

The Merino, that is the basis of our flocks, now very much less in number than formerly. This breed now con-

tributes but 9 per cent of the sheep of our country. Our Merino sheep are smaller and more active than your splendid Rambouillets. Yours are much heavier in wool and in grease; ours are plainer in fleece but equally as fine in the wool—still we have many types. A favorite type is a sheep producing a strong combing wool; that wool is in great demand.

The Romney.

This is the dominating sheep of New Zealand. The very special reason is that the Romney is of eminent vigor of constitution. The sheep itself is of sturdy form, its wool is improved in quality and increased in weight. Further it crosses well with most other breeds and the ewe is an excellent mother.

As a proof of the appreciation of the Romney, in 1905 the registered flocks of Romney stud sheep numbered 75; in 1914 these flocks had increased to 330 with an actual registration of 301,000 sheep. The Romney was introduced with the first of the British long wools. The greater part of the original flock was dispersed many years ago, but a part has been continued in the flock of the Doyen of the Romney men, "Mr. Matthews;" some of this gentleman's sheep were very successfully presented for competition at the Panama-Pacific International Exposition at San Francisco.

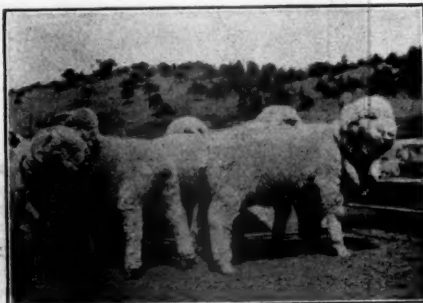
We believe that the New Zealand Romneys are an improvement on the sheep of their own original home in Kent. There close to the great meat market of London, as it is, the chief aim was the production of a sheep for the butcher. We claim that from this sufficient attention was not directed to the wool. It is believed that the New Zealand sheep retain the form and constitution with a fleece of heavier, even better quality of wool.

We demand that the Romney ram exhibits a thoroughly masculine head, a bold eye, a good carriage, strong neck, level wide back, and loins, well sprung ribs and a full quarter. It is possible that all of this is looked for in all sheep; it may be so and it is certainly these characteristics that we

find present in the type of Romneys that our flock masters have succeeded in standardizing in New Zealand.

It is entirely accepted that the wool of the Romney exhibits variations; there are considerable differences in the wool of individuals of a flock; there is still greater divergence in the flocks of breeders. This is common to all breeds but probably accentuated in the Romney. This is diminishing; our breeders are working to a single type. This is a wool of fine staple, good length, free, fairly dense and lustrous; the fleece should open freely—that is, there should be no cross fibres holding the locks together.

A well bred, carefully selected, well



SOME OF W. D. CANDLAND'S RAM LAMBS

conditioned flock of ewes and hoggets, with a fair proportion of wethers has clipped up to 10½ pounds of wool. A stud flock is reported of which the ewes clipped 21 pounds hoggets 22 and the rams 28 pounds. As a sheep for the butcher it is esteemed.

It may be again repeated it is the vigor and constitution that places the Romney foremost in the flocks of New Zealand.

The Lincoln.

The Lincoln was at one time in the highest favor as a pure bred and for crossing purposes. The Lincoln still holds prominence next to the Romney with 96 registered stud flocks. This breed, that of all the sheep of the farm, provides the greatest weight of meat and wool, is firmly established in the estimation of those sheep breeders whose farms are situated on rich soil. The Lincoln is the sheep of the heaviest, richest districts of England. It requires better feeding than some other

sheep and it responds generously to liberal treatment.

The Lincoln has been selected by the New Zealand sheep breeder, with one exception, as the sire, the most suitable for the development of the Corriedale.

The English Leicester numbers 8 registered flocks. It is a sheep largely used where the farmers are of English descent; that district is known as Canterbury and that name is now a trademark, or designation of the highest quality of New Zealand lamb and mutton, that is quoted on the London market. It was once the production of the great sheep district of Canterbury. Its excellence was so pronounced, that it became envied; now all first quality refrigerated meat from New Zealand is known as Canterbury on the London market.

The New Zealand type of English Leicester is a very different sheep from the fashionably bred animals that have been lately imported from that country. They are tall sheep; in colonial parlance, "They are on the leg," they are certainly large sheep and it is extremely doubtful if the wool is as fine, or even if it is of the true Leicester type. To us of New Zealand, the modern English Leicester fails to appeal, as did those beautifully formed sheep of the older type, Bakewell English Leicester—the aristocrat of the British long wools.

The Border Leicester also has a registration of 84 stud flocks. This sheep is in special favor in the southern part of the Dominion where the farmers are chiefly from Scotland. It is of great hardiness and in favor with the butcher.

The Southdown has 38 stud flocks. It is used entirely for the production of crossbred lambs for refrigeration. The half-bred Southdown lamb matures early and at a dressed weight of 30 pounds it is well finished in condition and at the weight most desired on the London market.

The Shropshire numbers 20 stud flocks. It is used entirely for the same purpose as the Southdown. It is claimed that the lambs do not fatten

quite so quickly and when fat are heavier than is desired for refrigeration.

Corriedales.

Of all breeds of sheep, the evolution of the New Zealand Corriedale attracts the greatest interest. How this came about has been mentioned. A sheep was wanted to take the place of the Merino, on the more fertile and better grassed hills, and for the heavier soils of the plains—one that would submit to greater restraint than the Merino that thrived on the open hills.

A flockmaster of our country, Mr. Jas. Little was seeking such a sheep; he entered on the undertaking; he created the Corriedale, the name of the property was that of the sheep "The Corriedale." He wanted a wool with the best characteristics of the Merino with the form of one between the English Leicester and a Down—a sheep for wool and mutton.

In 1865 the first cross was made—a Lincoln ram with a Merino ewe; from this progeny selection was made. Not then satisfied, another cross of the same breeds was made with selection on different lines. This has been continued with marked success. The system that Mr. Little originated has since been followed by others; there are now 24 registered Stud flocks numbering 13,500 pure Corriedale sheep.

With one exception where an English Leicester was used, the New Zealand Corriedale is the progeny of a Lincoln sire with a Merino ewe. The breeding of the selected progeny then continues without further crossing. The Corriedale is therefore the result of the continued and careful selection of the inbred progeny of halfbred or first cross parents. Most undoubtedly to secure and to maintain the desired type, the most skillful selection extending over many generations is essential. It may be accepted that those sheep breeders who have secured the recognition of their flocks have been most justly rewarded for their perseverance and the New Zealand Corriedale is being appreciated in many lands. The appreciation may well be merited; the Corriedale was evolved from decidedly divergent parents; indeed from those

of violent contrast—the active Mountain Merino, the inactive Lincoln of the rich level country;—the Merino probably the oldest of the breeds of domesticated sheep; the Lincoln already a cross of the original breed and an English Leicester.

It may be a problem for the student—what may be the effect of the prepotency of the pure bred Merino on the cross bred Lincoln—how far it may cause a divergence from the desired type. May it not be that there will be the tendency towards the Merino—the pure bred as dominant to the hybrid? For this cause, if there be the intention to introduce this most desirable

There is yet in New Zealand a most interesting development in sheep breeding. One that I should be unwilling to mention unless with the support of the record of Volume IV of the New Zealand Flock Book. It is the use of a direct halfbred ram on halfbred ewes. I may be permitted to read the copy of the record:

STONYHURST HALFBRED FLOCK.

The Property of Sir George Clifford, Bart.—Vol. 4.

"In 1886 a commencement was made in breeding halfbred sheep by Lincoln rams from Merino ewes, at Stonyhurst and the main breeding flock is now



THE OLD SHEARING SHED AT WAMSUTTER, WYOMING

sheep into this country, let it be of sufficient number to permit of liberal selection of the progeny. Let it be assured that however careful and skillful the purchaser may be, there will be sheep to discard, if the type is to be maintained.

New Zealand will sell you Corriedales of the best, but you must be prepared to pay higher prices than appears to be the custom here if I may judge from the sacrifices of sheep, that I was compelled to make of those sterling sheep at San Francisco. I can never face those owners. I can never recommend importation of such sheep unless, of course, they are first sold and at New Zealand prices.

halfbred. The practice throughout has been to mate first cross Lincoln-Merino rams with halfbred ewes, which are now descended from many generations of halfbred mothers. The stud rams bought have been exclusively Lincolns, from the flock of Mr. H. J. Hall, and after its dispersal, from that of Mr. J. S. Holmes; but they are now bred in the Stonyhurst Lincoln flock (No. 30). These rams have been used with the Stonyhurst stud Merino ewes to produce halfbred rams. The result has been to create a very level flock of about 10,000 halfbred breeding ewes. The hoggets are culled before March and the faulty ones are thrown out to breed fattening lambs by Shropshire

Down rams. It is now found sufficient to take about 15 per cent. The success attained is attributed to the persistent use of the same types of Lincoln and Merino sheep from the same stud flocks. Experiments have been made in breeding rams by prize half-bred rams from picked halfbred ewes, but sheep so bred, though generally satisfactory, have not displaced the first cross ram for use in the station flock. For supplying these rams a selection of the Merino stud flock is annually drafted, to be put to the stud Lincoln rams."

This flockmaster is one of the foremost breeders of our country and lately there are others, among them one of the very shrewdest of our sheepmen, who are breeding these same sheep as described in the record read to you.

There are claims and counterclaims for the Corriedale and the halfbred, of which results in the better or the more even flock. Both are crossbreds—the halfbred the more immediate and that after all is the chief difference.

Let me say a word of praise for the useful work that the Sheep Breeders' Association has affected in New Zealand. In the first place, they bring the sheepmen together. The Association has standardized types. They assure the accuracy of breeding. They afford assurance to purchasers of purebred stock. It has enabled New Zealand to secure extensive trade in stock with Australia and South America.

Let me hope to see some of you in New Zealand. It is just three weeks across the Pacific. You would be interested in our country, our farms, our stock, our lakes and mountains and not least, our people are akin.

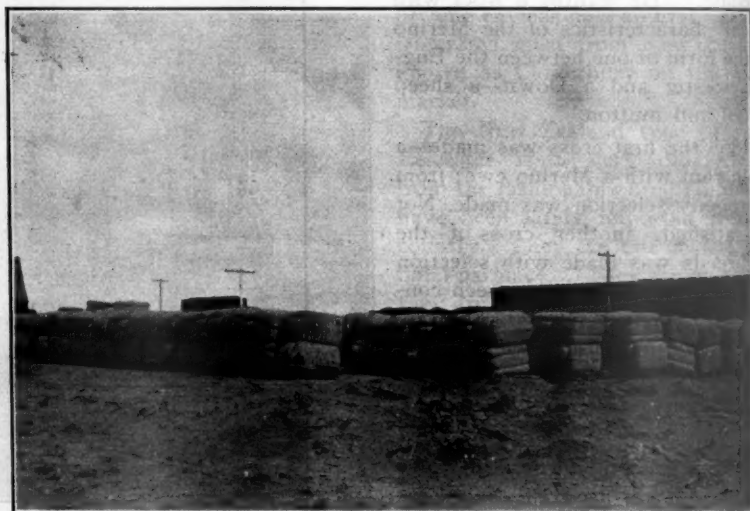
THE WOOD LIVE STOCK SHED.

In this issue we publish the photograph of the shearing shed of the Wood Live Stock Company at Spencer, Idaho. This is an old shed built about eleven years ago, but it is still one of the best in the country, and it would be very difficult to improve upon it. The shed is built with a main shed and

two wings. One wing holds about 400,000 pounds of shorn wool and the other has a capacity for 3,000 shorn or unshorn sheep. The shed is equipped with twenty-four machine shears, and the machines have been used in this plant from the beginning. All alleys in the shed, as well as the shearers' board, are equipped with slatted floors, so that all filth and trash carried in on the feet of the sheep drop through to the ground. The shed is also equipped with a grader's table and with one of the best wool-weighing arrangements we have even seen.

Originally the sheep shed was built with the idea of using it as a sweating

surrounding the shed was either their private property or was not liable to be homesteaded. The importance of this consideration is well illustrated by this excellent shed of the Wood Live Stock Company. When this shed was built, it was not thought that homesteading would ever interfere with its use, but time has proved otherwise. The lambing range that was then used by this company has now become dotted with dry land farmers so that a new lambing range had to be secured. The result is that this company will use this excellent shed for the last time this season. It is to be torn down and moved on to the deeded land of this



BALED WOOL AT WAMSUTTER, WYOMING

shed, but after sweating the sheep for a few years, the Wood Live Stock Company reached the conclusion that it was of no advantage because while the sheep might shear a shade easier on account of the sweating, the pen in which they were sweated always became filthy, which resulted in the wool also becoming more or less stained. After this conclusion was reached, the solid side of the shed was torn out and an ordinary fence built to replace it, so it would dry out.

On several occasions we have suggested in this paper that before wool-growers went to any unusual expense in the construction of shearing sheds, they should be assured that the range

company where the homesteader can not interfere with sheep getting to it

UTAH LAMBS SELLING.

Contracts have been made for a considerable number of Utah lambs to be delivered in September. The prices have generally ranged around \$7.25 per hundredweight. We are advised that in the American Fork country about 65 per cent of the lambs have been sold for September delivery at \$7.25. Most of the growers, however, are holding for 8 cents and are not disposed to sell at present.

August 30, 31, September 1, and 2

SHEEP SHEARS AND EXTRAS



Our stock of Combs, Cutters, and Parts for Stewart Shearing Machines is very complete, and includes Stubbs pattern and the original PRIEST COMBS and CUTTERS.

We ship the goods the same day that your order is received.

THE SALT LAKE HARDWARE CO.



Bale Your Wool WITH THE Cooper Wool Baler

A Few Satisfied Users:—

Swastika Sheep Co., Laramie, Wyoming
Adams-McGill Co., Ely, Nevada
J. L. Sprinkle, Chinook, Montana
R. C. Harvey, Lethbridge, Alta., Canada
Hadsell Live Stock Co., Rawlins, Wyoming
Wm. Daley Company, Rawlins, Wyoming
Stratton Sheep Co., Rawlins, Wyoming
Pioneer Australian Shearing Sheds, Rock Springs, Wyo.

Bale your wool and save both time and freight—burlap is high and a wool pack holds as much as two sacks.

Write for Catalog

WILLM. COOPER & NEPHEWS, Chicago, Illinois

Do Your Shearing with

Take the wool off evenly and quickly. Get a long even buyers. Any of the **Stewart** machines shown here

Stewart No. 9 Hand Operated Machine Ball Bearing

For Flocks up to 200



\$11.50

with four
sets of
combs
and
cutters

This machine has a substantial fly wheel enclosed in the gear case. That facilitates the easy turning. The gears are all cut (not cast) from the solid steel bar and are file hard. They are enclosed, protected and run in oil. Every point of friction is fitted with ball bearings. That contributes much to the easy running and long life of the machine. The shearing head is also ball bearing throughout.



Send us \$2.00 and we will ship C. O. D. for balance, or remit in full, as you prefer. If the machine doesn't please you in every way, return it inside 30 days and we will send your money back, including transportation charges. If you haven't sheared yet, send for one of these machines today and see what real satisfaction there is in this splendid machine.

The price all complete as described is only \$11.50, which includes four sets of knives.

Stewart Little Major Shearing Machine

For Flocks from 200 to 1500

This illustrates the Stewart Little Major Gasoline Motor equipped with our attachment for shearing sheep and goats. The shear can be started or stopped, connected or disconnected while motor runs. A stout spring on clutch bracket either holds or releases clutch—just a pull of the first section of tubing outward, or push inward by shearer. Fitted with latest No. 12 Stewart shear.

As a complete single power unit—warranted to clip any wool or mohair grown—the Stewart Little Major Sheep and Goat Shearing Machine fills a long felt want among those owners who consider hand power machines inadequate for their bands, and who have no available engine to spare for driving a power machine. It is also a boon for the custom shearer by reason of its simplicity and light weight—90 pounds.

Price, complete as shown with battery without table, f. o. b. Chicago.....\$50.00

With high tension magneto.....\$60.00



What Users Say

McAndrews (via Mack), Col., July 20, 1914.
In 1909 I installed a new Stewart Machine sheep shearing plant consisting of only six machines, and have since then enlarged it to a fifteen machine plant. After five years' experience with the plant I am pleased to state that the Stewart Sheep Shearing Machinery has proven satisfactory in every respect.

R. A. TANNEY.

Winfield, Iowa, Aug. 6, 1914.
The Sheep Shearing Machine No. 9 with horse clipper attachment is all that it could be.

E. ENKE.

Joliet, Ill., July 14, 1914.
We now have our shearing plant equipped with eight Stewart Machines, which are uni-

formly giving good service. The perfection of the New Stewart Machine has placed the responsibility for the quality and quantity of work done entirely upon the operator. We could not ask more from them.

MILLSDALE SHEEP FEEDING YARDS,
A. J. MILLS, Manager.

I am well pleased with your machine and think it a great labor saving device, besides doing a great deal better work than can be done by hand.

J. L. LITTLEFIELD.

Hansell, Ia., August 12, 1914.

Have used one of your power machines for three years. It is all one could expect in its line.

WM. R. HELD.

Farmington, N. H., July 14, 1914.
I am very much pleased with the Stewart Sheep Shearing Machine which I purchased from you about three years ago. It has done good work and I found it will do what you claim.

FRANK H. DOW.

Los Banos, Cal., July 14, 1914.
I have tried your Little Wonder Shearing Machine and it is proving satisfactory. You will please ship me one just the same kind. Please ship as possible. I want to use it right up to the next season.

W. W. WELLS.

Darlington, Wis., July 14, 1914.
We have used your Stewart Sheep Shearing Machine for several years and believe no other machine could do better work.

Send your order now for a machine suitable for
Chicago Flexible Shaft Company

Easy and Comfort This Year

even that will bring the most from
ere it for you. **Order Now.**

Stewart Little Wonder Power Shearing Outfit

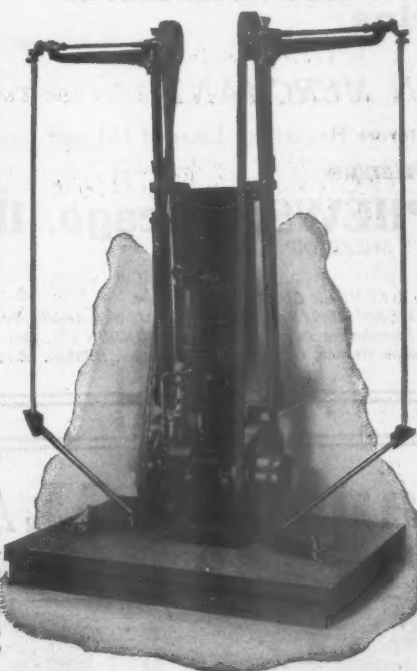
For Flocks from 1500 to 5000

is an exceptionally
power outfit for own-
flocks ranging from
5000. It consists of a
two-horse power
type, gasoline
two Stewart shears,
working independently,
grinder. The whole
in one machine
can be easily moved
from place to place by
men, or carried in a
It is just the thing
shearers who wish to
about from flock to
during the shearing

Price.

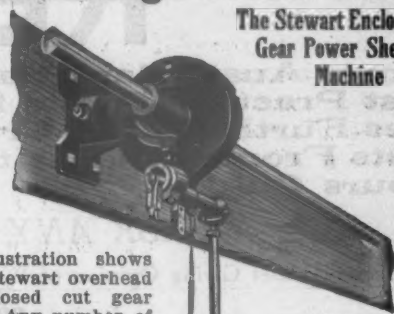
Stewart "Little Won-
including en-
two shears,
batteries,
tanks and
\$100.00
Combs at 50
each 6.00
Cutters at 15
each 3.60
Complete \$109.60
Stewart "Little Won-
fitted with a Magneto
if desired at an
cost of \$10.00 to
list.

Write for catalog of this and other power Shearing Machines.



For the Large Flock Owner

The Stewart Enclosed Cut
Gear Power Shearing
Machine



This illustration shows
a single Stewart overhead
type, enclosed cut gear
machine. Any number of
these may be operated on
one line shaft.

Every moving part is
securely enclosed in a
metal case where it runs
in oil protected from dust
and dirt.

This machine runs ab-
solutely without thrust.
The action is positive and
there is no lost motion.

No friction wheels to
slip or leather to get oil
soaked or spongy.

Runs on slow line shaft
with speed of about 450
revolutions per minute.

Price per unit, \$50.00.

Write for
special catalog
and prices on
complete
plants.



Stewart Machines:

July 14, 1914. I am well satisfied with our investment;
with the Stewart way is the only way
which I would permit our sheep to be shorn.
I am now using your horse clipper at-
will do it which more than paid for itself
K. H. DOWNEY.

GEO. D. PARKINSON & SON.

July 25, 1914. I am well satisfied with our investment;
with the Stewart way is the only way
which I would permit our sheep to be shorn.
I am now using your horse clipper at-
will do it which more than paid for itself
K. H. DOWNEY.

Monticello, Ill., August 1, 1914.
The "Little Wonder" Stewart Sheep Shear-
ing Machine is truly a little wonder. Plenty
of power, speed and a splendid machine.
FRANK O. DILATUSH.

Sterling City, Tex., July 28, 1914.
Some time ago I purchased a Stewart
Sheep Shearing Machine from you and used
it for two seasons, and its work was entire-
ly satisfactory. I think the machine the best
I have ever seen.

A. A. GAMBLE.

Carpenter, S. D., July 8, 1914.
I have used a Stewart No. 9 Shearing Ma-
chine for four years and it works as good
as new yet. The machine shears clean and
runs easy. I had never seen a machine work

until I got this one and can shear a sheep
in four minutes now.

W. L. MERRIMAN.

Fowlerville, Mich., July 26, 1914.
I have used one of your Little Wonder
Shearing Machines for five seasons and there
is no better. I shear thousands of sheep
every year. After shearing I use my engine
for pumping water.

WM. WENDEL.

Breedlove, W. V., July 15, 1914.
We bought one of your Stewart Sheep
Shearing Machines about three years ago. We
like it; runs easy, and does good work. We
have never seen its equal anywhere.
JACOB AND JULIUS SLAUBAUGH.

Write for our flock or write for new 1915 Catalogue

596 LaSalle Avenue

CHICAGO

"THE ONLY PAINT THAT SCoured PERFECTLY"

Wyoming Experiment Station Bulletin 93

KEMPS

**Kemps Australian Branding Liquid—
Most Practical Brand for the West—
Goes Further Than Crude Brands—
Lasts From Shearing to Shearing—
Scours Out.**

ASK ANY WESTERN MERCHANT

Write for Special Booklet Giving Opinion of Woolen Manufacturers Regarding Linseed Oil and Lamp Black Brand

SOLE MANUFACTURERS

WILLM. COOPER & NEPHEWS, Chicago, Ill.

PROPRIETORS COOPER'S SHEEP DIP.

Utah Distributing Agents, **SALT LAKE HARDWARE CO.**, Salt Lake City

Washington and Oregon Distributing Agents, **CENTRAL DOOR & LUMBER CO.**, Portland, Oregon

Central Texas Distributing Agents, **WOOL GROWERS' CENTRAL STORAGE CO.**, San Angelo, Texas

California Distributing Agent: **HUNTER-JOHNSON CO.**, San Francisco, California

Montana Branch, **C. F. WIGGS**, Manager, Billings, Montana

WALNUT HALL and ENGLAND

Are two places where the best Hampshires can be bought.



SOME OF THE WALNUT HALL STUD RAMS—These rams were machine sheared two months before photo was taken.

We will write you a contract for delivery dated any time after June 15th; or import for you with our own shipment in July.

Address all communications to— **Robt. S. Blastock, Mgr., Box Y, Walnut Hall Farms, Donerail, Ky.**

The National Wool Grower

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(Incorporated)

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Edited by the Secretary

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LONDON WOOL MARKET.

As we go to press, we have received through the Daily Trade Record a cable sent from London to that paper under date of May 4th. This cable indicates that at the London sale on May 4th there was tremendous buying, and both Merino and crossbred wools advanced about two cent per pound. The cable further recites the English merchants are buying wool with the thought that it will be difficult to obtain later in the season.

OUR RAM SALE.

On another page will be found the entries for the Salt Lake Ram Sale, August 30, 31, September 1, and 2. These entries are almost complete with the exception of some Hampshires from the Walnut Hall Farm and some Rambouillets from Quealy-Peterson Sheep Company. On account of unavoidable circumstances these two firms were unable to definitely state what their entries would be at the time of going to press, but space has been reserved for them.

Any one familiar with Western stud flocks will note that our entries comprise many of the most noted American flocks, and these entries evince the determination of these stud breeders to present their rams for comparison with rams from other sections of the country. This is the spirit that will bring marked improvement to our Western sheep industry.

All over the country we note a marked increase of interest in purebred

livestock affairs. Public sales of purebred horses, cattle, and hogs are being exceptionally well patronized. We cannot think that our sheepmen are going to allow their industry to lag behind. Certainly a combination of circumstances promise to make the year 1916 the best one in the history of Western sheep affairs. These fortuitous circumstances will be availed of by most of our sheepmen by the purchase of better rams. This ram sale will offer an opportunity never before presented to range sheep breeders, and we are looking forward to a phenomenal event.

THE BOUNTY QUESTION.

Recently a small association of livestock men met in eastern Montana and passed a resolution urging the state to repeal its bounty on wild animals and turn the destruction of them over to the Federal Government. This is such a dangerous proposal that no time should be lost in denying the correctness of it.

The National Wool Growers' Association is largely responsible for government hunters being in the field. It was this organization that first proposed the Federal hunter idea, and it was responsible for obtaining the appropriation under which the work is being done. But when this appropriation was obtained, it was not with the thought that the Government hunter would ever displace the bounty or would ever be a very important factor in suppressing wild animals. We thought then and we now think that

as between Government hunters and the bounty system, the bounty will account for about ninety per cent of the wild animals destroyed and Government hunters for about ten per cent. Remember that under the bounty system between 300,000 and 400,000 coyotes are being destroyed yearly at an average bounty of not to exceed \$2.00 each. To destroy this number of coyotes, the Federal Government would have to appropriate three and a half million dollars annually or five times what it costs under the bounty plan.

The government hunter holds no magic wand for the destruction of wolves or coyotes. In most cases the Government has simply employed the same hunter who has been trapping in the West for many years. This trapper is using exactly the same method to destroy coyotes that he used before he started work for the Government. It is certainly reasonable to assume that this same trapper when he worked for himself was just as active as he is now when he works for the Government.

Then some one says there has been fraud under the bounty system, but when you ask for evidence of it, he points to something that happened in Pennsylvania or Wisconsin, cases that have no bearing on the Western situation whatever. Undoubtedly there has been some fraud in the operation of the Western bounty system, but it is really surprising that it has been so small. The fraud that has been practiced has generally been the taking of coyotes from one state to an adjoining state that paid a higher bounty. While this was wrong, it offers the Government hunters no ground upon which to criticize the bounty system for so far as they are concerned they know no state lines. Then, anyhow, there is probably no more fraud under the bounty system than under a system of paid hunters.

We believe there is vital need in the West for Government hunters, and the Federal Government is most certainly under obligations to assist in the destruction of predatory wild animals, but if the presence of the Government hunter endangers the continuance of

our bounties, then the sooner the Government takes its men out of the field the better for Western livestock interests. Government hunters will not destroy to exceed 25,000 coyotes in any one year, while our bounties get between 300,000 and 400,000. The Government hunter may render very excellent service in getting a few coyotes or wolves that are especially destructive and which remain in a section where the local hunter cannot afford to work. But all money expended for the destruction of predatory wild animals should be spent with the object of ultimately eradicating them. When this object is in view, the bounty will always prove the most effective. Bounties of themselves are not entirely satisfactory, but when supplemented by paid Government hunters, they will always be the most effective method of eliminating destructive animals. After the Government hunters have had more experience, they will undoubtedly reach this conclusion.

IMPROVED WOOL HANDLING.

In this issue will be found many photographs of the better shearing shed in the West. Naturally there are many other good sheds in the West that are not here presented, but our idea in submitting these photographs is to interest woolgrowers in the improvement in handling wool that is being effected in certain sections of the West. Under the direction of the National Wool Warehouse and Storage Company, last year several million pounds of wool were graded and baled at the shearing sheds in Montana, Wyoming, and Nevada. This year all the men who graded their wool last year are again having it graded by the Warehouse as well as many who did not grade. In Wyoming, the Warehouse will grade and bale about 4,000,000 pounds, in Montana about 4,000,000 pounds, and in Nevada about 200,000 pounds. These graded lines are the commercial grades of wool that have been established and used by the American mills almost from the beginning. Under the plan of the Warehouse, the different grades are num-

bered as follows: No. 1, fine staple; No. 2, fine clothing; No. 3, half-blood staple; No. 4, half-blood clothing; No. 5, three-eighths-blood; No. 7, one-fourth-blood; No. 8, braid. As each fleece of wool is taken from the sheep, it is thrown on the table and all the tags and stained wool removed. These are baled separately. The fleece is then rolled up and baled, the bales averaging about 440 pounds in weight. After baling each bale is stenciled, showing the grade of wool, weight of bale, number of bale, and the owner's brand. When the buyer comes to look at the wool, he is handed a statement showing exactly how many bales of each grade of wool is in the clip, and the Warehouse guarantees that each bale is exactly as represented.

We talked to many growers who were having their wool graded and baled. All were greatly pleased with it, and not one man ventured the suggestion that he would ever go back to the old system of sacking everything together.

In addition to the grading that is being done, several woolgrowers along the Union Pacific in Wyoming are putting up their wool under a modified Australian plan. Under the leadership of Mr. Cosgriff, they have formed the American Wool Improvement Society. Three classers have been brought from New Zealand and one from Philadelphia. Under this system the bellies are shorn separately and so packed. The balance of the fleece is then thrown on a skirting table and very lightly skirted. It is then classed into certain lines adopted by the above society. About 1,700,000 pounds of wool will be prepared in this manner in Wyoming. We were advised that one-half the wool put up by the American Wool Improvement Society was to be sent to Mr. Baker, a Boston dealer and the other half to Webb and Company of Philadelphia. It is reported these firms will handle the wool for one-half cent per pound commission, and the grower is to pay the expenses such as storage, insurance, etc., which should not exceed one-fourth cent additional.

In addition to better wool handling in this section of Wyoming, several new sheds have been erected, some of them after the plans of Australian sheds and some modeled along American ideals. This district needed new sheds badly, and certainly they have built well. What these men need now and need badly are a few sheds along the route traveled by shorn sheep to protect them from storms for a few days after shearing.

We are glad to record all this improvement as it was badly needed, but in giving credit for it, the woolgrower himself is entitled to the lion's share, for this is the first year that his financial condition would have allowed him to make such radical changes. When a business is profitable, men are disposed to put money into it. When it is unprofitable, they can't.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

Of National Wool Grower, published monthly at Salt Lake City, Utah, required by the Act of August 24, 1912.

Note:—This statement is to be made in duplicate, both copies to be delivered by the publisher to the postmaster, who will send one copy to the Third Postmaster General (Division of Classification), Washington, D. C., and retain the other on the files of the postoffice.

Name of—	Postoffice Address.
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Business Manager, S. W. McClure.Salt Lake City, Utah
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National Wool Growers Association Company and thirteen other State Wool Growers Associations. No stock is held by individuals.	

Known bondholders, mortgagees, and other security holders, holding one per cent or more of total amount of bonds, mortgages, or other securities: None.

S. W. McCLURE.

Sworn to and subscribed before me this 3rd day of April, 1916.

(Seal)

W. O. CLELLAND,
Notary Public.

(My commission expires Sept. 7, 1917.)

August 30, 31, September 1, and 2.

The English Wool Situation

(By Our Correspondent In England)

Bradford, April 19, 1916.

THE month under review has not been marked by any really significant features, the whole industry having now arrived at time when the anomalous statement is justified of being normal in these abnormal times. What the writer means is that we are now no longer in a turmoil, we are not experiencing a big rise or fall, things to a large extent marking time. That may be a bald expression, but it is significant of a good deal, far more than appears on the surface. Crossbred wool especially has of recent months come in for a good deal of attention, it has had a fair share of ups and downs, and although the month has seen prices rather recede, this class of raw material occupies an unusually sound position. And well it might. One has only to consider their general utility for present war purposes to see that they are bound to be specially wanted because of their all round usefulness, this feature being strongly in evidence. What the writer means is that there is no article more suited to present day requirements than the fleece of the mutton breeds, and if the question was put as to what is the most useful it would indeed be difficult to say. At the same time the matter is well worth considering both from a wool grower's and user's standpoint, and a few remarks on the various purposes to which the wools are being put today will not be amiss.

The Qualities of Crossbreds.

The reader no doubt knows that for all general purposes crossbreds are divided into three classes, namely, fine, medium and coarse qualities. Fine qualities are usually spoken of as being 50's to 56's, medium crossbreds 44's to 48's and coarse crossbreds 36's and 40's. This is simply a rough method of classing wools, and a good deal more could be made of them, and is done in actual manufacture. It can be truthfully said that anything below 60's quality is really

crossbreds, 58's being a very useful class of wool usually spoken of as comeback. Then a standard 56's top is made, and really speaking these 56's and 58's wools should be classed as superfine crossbreds, ordinary fine crossbreds being 50's to 54's quality, though 54's is not really a standard type of wool, most topmakers sorting these into what they call super 50's. Then we have the ordinary 50's and these can be called fine crossbred wools. All these qualities are being largely used today in the production of fine hosiery yarns, as well as coating yarns for serge purposes. We cannot say that these fine quality crossbreds are being very largely used in the production of the ordinary tartan serge cloth which is being so largely used by the ordinary soldier. They are not being consumed here at all. Probably fair quantities of these fine crossbreds are being used for officer's cloths, but hosiery claims by far the largest quantity. It is when we come to medium and coarse crossbreds that a big onslaught is being made for the rank and file of the British and allied soldiers. At one time, that is at the beginning of the war, very large quantities of 40's crossbred wool were used in the production of the ordinary tartan serge, worsted spinners using 40's and spinning same into 2-24's yarns, but experience proved that this quality was not so well suited for the purpose specified, as 44's, 46's and 48's. Hence we find today that very large quantities of 44's and 46's quality of wools are being combed into tops and then spun into worsted yarns for the production of khaki serge. Then again big weights of these tops from the qualities named are being used in the hosiery trade for the production of stockings, comforters and cardigan jackets, these combined outlets providing a means of shifting large quantities of medium grease crossbred wool. Thirty-sixes, useful as it is, is not very largely availed of for khaki purposes, it being rather too strong and coarse, this class

of wool really coming into the production of heavy overcoatings for the use of all the troops on the battlefield. The reader will see that a coarse quality fibre is too rough and coarse to be worn next to the skin, consequently it serves an exceedingly good purpose when made into heavy overcoatings, providing weight combined with warmth and wearing capacity. Lately there has been a very big demand for all strong wiry coarse wools, even as low as Scotch Blackfaced, which has all been wanted and is still being largely used for the production of the Russian overcoating fabric.

If any reader had to ask which is the likeliest and most profitable wool to use, the reply would be somewhat difficult to give. Growers would decide upon the class of sheep used by local conditions. There seems to be room for all classes from the coarsest to the finest, and no doubt the class of country combined with the sheep best suited for one's immediate surroundings will be the wisest principle upon which to conduct sheep farming and wool-growing.

Present Trade Doing.

Recent weeks have been on the quiet side so far as actual business is concerned. The outcome of the last London March sales was by no means of the best, only real super lines of 56's and 58's quality wools maintaining prices. There is never a weak finish in Coleman street but what correspondingly unsatisfactory markets obtain in consuming centers, and while things are far from being stagnant, there is by no means an active market. As a matter of fact, prices have rather sagged, and we find in many quarters a desire to see rather lower prices at the current series of London sales. The auctions should have begun a good week ago, but owing to some difference of opinion having arisen between buyers and sellers, they have been postponed, and the writer will be greatly surprised if the bulk of crossbreds do not move to a slightly lower level.

The absence of facilities to ship crossbred wool abroad means that the home trade is now going to be called upon to lift the whole of the remaining New Zealand clip that is coming forward to Coleman street, and in the absence of new khaki orders, it would have been as well to have had a little decided competition in order to stimulate all markets alike. Of course, buyers want to get wool as cheap as possible, but some regard must be paid to the standard of values established at the New Zealand centers, and that really is the reasons for the writer saying that a little outside competition would have been beneficial in manufacturing centers as in Coleman street. Markets have rather sagged, there is not the interest that there might be, and a strong series of London sales would lead to considerable buying. The impression strongly prevails that all prospective supplies will be wanted to satisfy future needs; in fact the writer is satisfied that there is no surplus wool in sight, the needs of Great Britain and her Allies today being such that every bale of wool in prospect, both Merinos and crossbreds will be required. The market today is very well supplied with wool, and no doubt will be, as this is the time of the year when direct arrivals are very heavy and when the financial resources of the trade are heavily taxed. That is the position at the present time, and no doubt the offering of wool in Coleman street is going to be somewhat influenced by the financial state of affairs today.

Manufacturing Conditions Healthy.

Turning to the state of trade in manufacturing centers, we have still to report a continuance of a big consumption, mills every where being run to their utmost capacity. So far no manufacturing district has been visited by Zeppelins, machinery everywhere being run easily, the only missing link being a continual shrinkage in labor. That is the most serious cause of complaint. Manufacturing districts have been denuded very largely of active young men, female help certainly being on the meagre side. Women today are not relishing working inside

mills when better positions are available, hence production is nothing near so large as it might be. There is work enough and to spare for every able-bodied person willing to work, and if machinery can be kept running more fully, the consumption of wool would be greater. There is a shortage in every department, a great delay is seen, and the whole industry is suffering because of an inadequate supply of workers.

The Outlook.

We are now looking forward upon a very healthy situation, which is only marred by the limited output to which we have already referred. There is a hungry outside world all wanting wool, but fortunately or unfortunately our Government is not very ready to grant licences for the export of wool. If these were forthcoming at all freely, we should soon see booming markets with prices again in the clouds, but the Government is determined upon cheaper wool and is therefore restricting licences in a very severe manner. No shipments of raw materials are being allowed to the United States, France alone being the favored country. At the same time we must regard the position as very healthy. Wool for the time being has stopped rising except Merinos, but as already indicated there is every likelihood of all supplies being wanted, hence values are going to remain on a high basis.

London Wool Sales.

A week ago the third series of London sales began, and they are of direct importance to every reader of the National Wool Grower. This is due to the fact of the new clip just beginning to be shorn. Prices are all resting upon a very firm foundation, and we find that Merinos have advanced 2 cents per pound, and crossbreds are all distinctly firm at the rates ruling at the close of the March series. The British Government has taken the drastic step of telling hosiery manufacturers that before placing new orders they must consult them in regard to price, which to some extent means controlling factories. This has made

no difference to the market, and London has shown that wool is strongly entrenched, in fact it is going to be very firm and dear. The outlook could not be better, and we cannot see how wool values can fall. Mr. A. M. Patterson of The Textile Alliance has been over in London, interviewed the War Office and War Trade Department several times, but our authorities are unbending in their attitude, and refuse to allow wool to be shipped from London to Boston. That chapter is closed. There are 30,000 bales in New Zealand which have been bought in excess of what American buyers were told to purchase, and licenses are not as yet forthcoming, and I do not think going to be. All this means that American mills will be forced on to domestic wools, hence the outlook for the American sheepbreeder could not be brighter.

THE YEAR'S SHEEP SUPPLY.

Chicago was the only western market to show an increase in sheep receipts during the first four months of the current year. This was due to re-opening of the shipping outlet. The net decrease over the same period of 1915 was 148,322 head for which Colorado was responsible. The movement in detail follows:

	1916	1915	Net change
Chicago	1,188,586	1,109,593	+78,993
Kansas City	579,489	583,704	-4,215
Omaha	741,984	866,446	-124,462
St. Louis	146,354	174,175	-27,821
St. Joseph	328,414	369,089	-40,675
Sioux City	58,911	89,053	-30,142

Totals 3,043,738 3,192,060 -148,322

April receipts at the same markets showed a small net gain, Chicago leading. Considering the run, prices were high. Details follow:

	1916	1915	Change
Chicago	269,508	232,281	+37,227
Kansas City	127,615	119,494	+8,121
Omaha	155,387	150,155	+5,232
St. Louis	33,291	39,408	-6,117
St. Joseph	51,766	85,821	-34,055
Sioux City	4,852	7,986	-3,134

Totals 642,419 635,145 +7,274

J. E. P.

SWEATING SHEEP.

From some of the letters we have received, it is evident that a portion of our sheepmen do not understand what is meant by sweating sheep. The purpose of sweating sheep is simply to make them shear easier, or if done to excess, to increase the weight of the fleece. Everyone knows that the oil or gum in the fleece of our sheep during cold weather make it extremely difficult to force the shears through the wool, while in warm weather or when the sheep is warm, this gum or oil becomes very soft or free, and shearing may be practiced with greater ease. The skin of a sheep is supplied with sebaceous or sweat glands and oil glands. When the sheep becomes warm, this sweat is given off on the surface of the skin and passing into the fleece softens it up somewhat. Also during periods when the sheep is warm, the oil glands are more active and they likewise give off their oil onto the surface of the skin. Naturally this sweat and oil being warm and liquid makes it much easier to shear the sheep. However, if this sweating is carried to excess, it means a material increase in the shrinkage of the wool. If the sweating is carried to the point where the shrinkage of the wool is increased, then it is injurious but where the sheep are simply warmed up so as to soften the grease already in the fleece, it will make them easier to shear. Sweating is desirable in cold sections where shearing is done early, but where shearing is done late after the weather becomes warm, we see no necessity for it. The practice of sweating sheep is an old one. We have seen it practiced in Montana sixteen years ago and think that it has been used more or less at different times in all portions of the United States. We understand that it is very common in Australia.

IDAHO WOOL SOLD.

The woolgrowers in the vicinity of Rexburg, Idaho, have been in the habit of pooling all the wool grown around that vicinity and selling it as one clip.

Last year this Rexburg pool sold its clip amounting to 750,000 pounds at 27 5-8 cents. This year the same pool amounting to 104,000 fleeces has sold to Jeremiah Williams and Company at 30 cents.

WOOL PACKS.

When wool is baled a special sized pack is used instead of the old sack so well known to most Western sheepmen. This year by reason of war, these wool packs were very expensive, costing laid down in this country around \$1.35 each. To reduce somewhat this expense, the National Wool Warehouse and Storage Company purchased several thousand second-hand packs and had them patched so that they answered very well for baling wool. It is the custom in Australia and New Zealand to use second-hand packs wherever they are available, but the jute has become about as valuable for carpet making as for packing wool. Since the baling of wool is becoming established in this country, we think that the wool manufacturers could obtain some additional revenue by preserving these second-hand wool bales so that our sheepmen may be able to obtain them.

OUT OF SHEEP IN MONTANA.

One of the old time woolgrowers of eastern Montana sends us the following:

"The sheep business in this part of the country is closing out; in fact it has about gone. It is pretty hard to convince the dry farmers that it would be to their advantage to give the sheepmen a show."

HAMPSHIRE ASSOCIATION MOVES

Mr. Comfort A. Tyler, secretary of the American Hampshire Sheep Association, advises us that he has moved the office of the Association from Coldwater, Michigan, to 36 Woodland Avenue, Detroit, Michigan.

\$5.00**Please**

All dues for 1916 amounting to \$5.00 from each member of the National Wool Growers' Association were due on January 1st. If you have not yet paid please do so at once. If you are a sheepman and not a member of the Association, your own conscience will urge you to join, we need every sheepman and they need the Association.

PREPAREDNESS

"In Time of Peace Prepare for War"

AN ADAGE as applicable to the Sheepgrower as the Nation:—In the peace and quiet of spring time, prepare for the War of Marketing soon to come. Full Values mean Financial Success and Continued Prosperity.

PREPAREDNESS to realize Full Values requires a knowledge of Market Conditions—a knowledge derived from an Authentic Source—A Source whose interest is Mutual—Not one that profits by Your Losses.

PREPAREDNESS to furnish Market Information—Conditions as they Actually Exist—The Outlook for the Season, etc., is a Service in which we take Pride—a Service that can be relied upon.

PREPAREDNESS for High Prices—The highest ever known is the problem of this season. Not a danger in itself to be sure—the danger lurks in unwise contracting at less than market values.

PREPAREDNESS for securing highest market prices is a service for which we are thoroughly equipped. Our banner has ever been foremost in the advancing price column and, when the tide of battle turns, skillfully contesting every inch of withdrawal—at all times alert to the safety and welfare of our customers.

W. R. SMITH & SON

"Who Handle Nothing But Sheep"

JOHN SMITH WM. R. (Bill) SMITH
CHAS. E. COYLE J. CLARK EASTES

Union Stock Yards

Omaha

Chicago

The Last Word "MILEAGE"

Opinions may differ on what constitutes a good tire until the mileage record speaks. Then Firestone mileage settles the argument. Firestone mileage talks convincingly. It has talked motorists into demanding twice as many Firestone Tires this year as last. It has talked many thousands of new dealers into joining the Firestone forces. It will talk you into insisting upon Firestones on every wheel and on the spare.

Firestone Non-Skid Tires



now have Red Side Wall and Black Tread, a handsome color combination, a trademark of Firestone. It adds a touch of elegant "difference" to any car without showy effect.

The Firestone Non-Skid Tread means big economy of extra mileage while affording the greatest possible security against skid or slide. Firestone Accessories give that help at the critical moment which the farmer—of all busy men—so much appreciates.

**FIRESTONE CEMENT-
LESS PATCH FREE.**

Let us send you a Firestone Cementless Patch Free—also copy of book, "Mileage Talks," No. 60. Write today. Meantime, see your dealer.

Firestone Tire & Rubber Co.

"America's Largest Exclusive Tire
and Rim Makers"

AKRON, OHIO
Branches and Dealers Everywhere

BOSTON WOOL MARKET.**Commercial Bulletin.****Ohio and Pennsylvania Fleeces.**

Delaine washed	38@
XX	34@35
Fine unmerchantable	33@34
1/2 blood combing	36@37
3/8 blood combing	@40
1/4 blood combing	@39
1/2, 3/8, 1/4 clothing	32@34
Delaine unwashed	@33
Fine unwashed	30@31
Common and braid	33@34

Michigan and New York Fleeces.

Fine Unwashed	27@28
Delaine unwashed	30@
1/2 blood unwashed	34@35
3/8 blood unwashed	39@
1/4 blood unwashed	38@
1/2, 3/8, 1/4 clothing	26@28
Common and braid	32@33

Wisconsin, Missouri and Average New England.

1/4 blood	38@
3/8 blood	39@
1/2 blood	32@33
Braid	32@33
Black, burry, seedy cotts	29@30
Georgia	33@34

Kentucky and Similar.

1/2 blood unwashed	37@
3/8 blood unwashed	40@41
1/4 blood unwashed	39@40
Common and braid	33@34

SCOURED BASIS.**Texas.**

Fine 12 months	72@75
Fine 8 months	62@65
Fine fall	54@55

California.

Northern	72@73
Middle County	62@65
Southern	60@62
Fall free	55@57
Fall defective	43@48

Oregon.

Eastern No. 1 staple	78@80
Eastern clothing	70@72
Valley No. 1	62@65
Valley No. 2	57@58
Valley No. 3	53@55

Territory.

Fine staple	@80
Fine medium staple	76@77
Fine clothing	73@75
Fine medium clothing	70@71
1/2 blood combing	77@78
3/8 blood combing	70@72
1/4 blood combing	67@69
Common and braid	57@58

A NEW COYOTE GUN.

On another page of this paper will be seen the advertisement of an automatic gun for scaring coyotes around lambing camps. This gun is a very small contrivance and is very simple in operation as well as very inexpensive to use. We have seen the gun operated here in the city and it seems to work very satisfactorily. The explosion is caused by the generation of carbide gas, and it ought to prove of value around lambing camps, where such methods are desired.

We shall be greatly surprised if we do not have at least 1500 sheepmen in Salt Lake City for our annual ram sale.

LONDON MEAT PRICES.

In March the following wholesale prices were quoted in London for frozen Australian and New Zealand meat:

New Zealand light ewes, 48 to 50 pounds	15 1/4c
New Zealand light lambs, 28 to 36 pounds	16 1/2c
Heavy lambs, 42 to 50 pounds	16 1/2c
Australian lambs, 28 to 42 pounds	16 1/2c
Argentine beef, fore quarters	13c
Argentine beef, hind quarters	16c

August 30, 31, September 1, and 2.

Sheep Foreman Wanted

A first-class man for general sheep foreman, capable of successfully handling 15,000 breeding ewes in the Northwestern part of the United States. Must be thoroughly experienced in the breeding and running of sheep in a mountainous country; a good judge of all classes of sheep and wool, able to improve the quality of the stock and capable of handling men. Only sober and reliable men need apply, and first letter should state age, nationality, if married or single, full details of experience, where employed at present, salary expected and references. Address Sheep Foreman, care National Wool Grower, Salt Lake City, Utah.

Yearlings**EWES FOR SALE****Aged**

We offer for sale 7,000 yearling ewes, half-blood Lincoln-Merino or Cotswold-Merino. Also a few blackfaces. These are extra choice. Can deliver in June or later. We also offer several thousand aged ewes. These are mostly half breds. If desired, we shall breed these ewes to Hampshire rams so as to lamb in February or March.

For particulars, address

WOOD LIVE STOCK COMPANY
Spencer, Idaho

RAMBOUILLETS

We offer for this season 75 two year olds and 300 yearling

Purebred Rambouillet Rams

These are big, hardy, heavy woolled rams.

CRANER & GOODMAN SHEEP CO.
CORRINE, UTAH

2000 Yearling Ewes

About 2000 Yearling Ewes medium grade. Will deliver at Shearing Corral about June 1st.

A. J. Mackie, Arco, Idaho

Messrs. HICKMAN & SCRUBY, Court Lodge,
Egerton, Kent, England

Export Pedigree Livestock

OF ALL DESCRIPTIONS
Specialty made of show herds, show flocks, show horses for the Panama Exposition.

Livestock is booming in North America, there is nothing to hinder importations required for exports from England, and the extra cost of insurance, freight, etc., is too small to make any difference.

Send for full particulars at once, if in a hurry, enquire by week end cabled letter. Americans ought to be importing bulls and rams by hundreds and we want to get busy.

Mention the National Wool Grower

EXPENSE OF HANDLING SHEEP

We have been asked to give the expense of handling sheep in the state of Utah, and below we submit figures that we believe are approximately correct. It is rather difficult to obtain accurate expense statements from most woolgrowers as many of them do not keep books, but the figures we submit are not far from the average.

Expense per sheep per year:	
Value of two-year-old ewe \$7.00,	
interest 8 per cent	\$.56
Value of equipment for each	
sheep \$1.00, interest 8 per cent	.08
Cost of labor for each sheep	.75
Depreciation in value of each	
sheep annually	.30
Cost of rams for each ewe annu-	
ally	.25
Loss of 8 per cent of sheep annu-	
ally	.56
Maintenance, forage, salt, leased	
range, dipping	.75
Miscellaneous expense, provisions,	
taxes, travel, etc.	.65
Total	\$3.90

WILL DISREGARD PRICES.

Present indications are that feeding lambs will be bought for next winter's finishing operations without regard to prices. For two seasons past, the stuff has made money, and it promises to be a case of "first come, first served." That there will not be enough to go around may be accepted as a foregone conclusion. Old-time feeders, many of

whom were out of the game last season, are determined to resume operations, and thousands of amateurs will fill orders. Packers are going to pick the crop close, and prices will probably rule \$1.00 per hundredweight higher than last year, if not higher.

J. E. P.

WOOL SELLING AT ROCK SPRINGS, WYOMING

We are advised that John Hay, of Rocks Springs, Wyoming, has sold his large clip at 31¼ cents. Mr. Rife and Mr. Jack, of the same place, have sold their clips at 30½ cents. All of these clips had been graded and baled by the Warehouse at the shearing shed. The wools were all crossbred and largely three-eighths blood, shrinking around fifty-five per cent.

FORCED OUT IN MONTANA.

Montana sheepmen are still being forced to close out their flocks, owing to range contraction. Fred I. Long, of Great Falls, is the latest to accept that alternative. He recently sold a band of 16,000 head, five purchasers getting the stock which will be distributed in Montana, Idaho, Wyoming, and South Dakota. Prices ranged from \$6.00 to \$8.00 per head.

We invite you to inspect carefully the list of entries for the Salt Lake Ram Sale, August 30 and 31, and September 1 and 2.

HAMPSHIRE

RAMS

HALF-BREDS

We offer for sale several hundred Hampshire yearling rams and 1,000 Hampshire ram lambs. Also 500 crossbred yearling rams. These crossbreds are out of purebred Rambouillet ewes and by registered Lincoln rams.

Address

WOOD LIVE STOCK COMPANY
SPENCER, IDAHO

LAMB CONTRACTING STILL ACTIVE

No cessation of demand for lambs for fall delivery is reported in the Northwest. Contracts are being made on a large scale in Montana and Wyoming at \$7.00@7.65. Reports come from Idaho that many have been contracted at \$5.00@5.50 per head.

Contracts have been made with the idea of securing material to fill feed lots next fall, and this means a light summer run of killers. Old-time feeders who were afraid of the game last year have determined to fill up, realizing that they lost an opportunity. If it is possible to overdo feeding next winter that trick will be turned, and it is merely a matter of getting the stuff to put into feed lots. J. E. P.

FEW EARLY SPRING LAMBS.

Only a handful of spring lambs reached market in April. They sold at \$13.00@17.00 per hundredweight with a few at \$18.00. A train of California stuff was split between Omaha, St. Joe, and Chicago. At the former markets the price was \$14.00, the Chicago end getting \$13.00.

Up to the first week in May, Louisville had received only a handful of Tennessee lambs. Contracting south of the Ohio River was done to a limited extent at \$9.00@10.00. J. E. P.

SILAGE FOR EWES.

The Deseret Sheep Company, of Boise, Idaho, last winter fed about 150 tons of corn silage to its flock of purebred Cotswold ewes. These ewes received on an average two pounds of silage per day in addition to cottonseed cake and alfalfa hay. Its silo is an underground one made of cement. The silage is raised from the pit by a derrick and deposited in a wagon. It is then hauled to the self-feeders, from which the sheep get it.

The Deseret Sheep Company is entirely satisfied with the use of silage as it had no loss that could be traced to that source. This company

asserts that this feed produces a world of milk, more in fact than the lambs could take and in some cases the ewes had to be milked by hand at times. About 1400 ewes were fed this silage.

WANT EWES IN CANADA.

The wheat raisers of this section have been using sheep on the summer fallow for some years and on the stubble in the fall. They have found that sheep are valuable for this purpose, and now there is a larger demand for sheep than we are able to supply. We should be glad to buy several thousand head of ewes in northern Montana and hope that woolgrowers having any for sale will write to me.

E. E. BOYNTON,
Big Stick Lake, P. O., Sask., Canada.

August 30, 31, September 1, and 2.

Lincolns — Cotswolds

One carload of yearling Lincoln Rams, one car of yearling Cotswold Rams, a few cars of Lincoln and Cotswold Ram lambs, a car each of Lincoln and Cotswold Ewes; also a few choice stud Rams.

R. S. ROBSON & SON,
Denfield, Ontario, Canada.

OXFORD RAMS

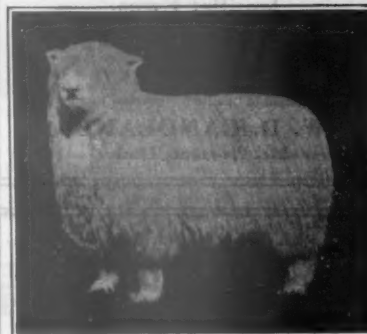
55 two-year-old Oxford Rams at
\$15.00 per head.

F. E. ARMSTRONG, Armstead, Mont.

500 Yearling Cotswold Rams

RANGE RAMS

STUD RAMS



One of Our Yearlings

Our flock consists of 2500 REGISTERED COTSWOLD EWES and includes the best blood of England and America.

We offer for this season 500 Registered Cotswold Yearling Rams and 1000 Ram Lambs. We invite inspection of our flocks.

Deseret Sheep Company

Boise, Idaho

Mention the National Wool Grower



A band of 1000 purebred Lincoln and Cotswold Ewes. Bred from the best stock to be found in United States and Canada. Owned by Austin Bros., Salt Lake City, Utah

Rams
for
Sale

SHEARING PLANT FOR SALE

14 machine Stewart plant with double grinder in perfect condition. Without power.

F. I. LONG, Great Falls, Montana.

RAMBOUILLET EWES FOR SALE

I AM OFFERING FOR SALE
1000 head of Purebred Rambouillet Ewes

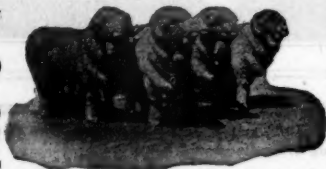
either registered or unregistered for delivery October 1st. Purchaser can have his choice from 2000 head including 800 yearlings and two-year-olds. I believe these ewes are as good as can be found in United States and my only reason for selling is that I cannot handle my present number.

W. D. CANDLAND

Mt. Pleasant, Utah

MT. PLEASANT RAMBOUILLET FARM

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Some of My Stud Rams.

My breeding is from the world's most noted flocks.

We offer for 1916-300 very choice yearling rams, large, smooth and fine woolled; also some ewes of the same type. We furnish rams for prominent breeders. For particulars call or write.

VISITORS WELCOME.

JOHN K. MADSEN, Mt. Pleasant, Utah

REGISTERED RAMBOUILLETS

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Bred and Raised by Us.

Our flock consists of 1000 Registered Rambouillet Ewes, 1000 Purebred unregistered Rambouillet Ewes. We offer for 1916-300 Registered Yearling Rambouillet Rams many of which are suitable to head the best American flocks. Also 330 Purebred Yearling Rambouillet Range Rams.

We will also sell 1000 Cotswold and Lincoln Yearling Rams part of which to be imported from Canada. Before purchasing elsewhere we invite your careful inspection of our flock.

QUEALY PETERSON SHEEP CO.
COKEVILLE, WYOMING

EXPECT BROAD**EASTERN DEMAND**

There will be few lambs raised in territory east of the Mississippi River this year, the southern crop is short, and eastern butchers will be under the necessity of competing with packers at western markets. An element of the population demands fresh-killed lamb and mutton, and butchers catering to that trade will satisfy it regardless of cost. This outside competition prevents packers from dominating the market as on every break orders are filled. It is a condition peculiar to both hog and sheep markets. Hog values are being maintained at a high level \$9.50@10.00 per hundredweight having bought the crop at western markets during April, and this is a stout prop under live mutton trade. If hogs were even a dollar lower, there would be more reason to regard sheep and lamb prices as top heavy. What the grower needs is a stable market and that he is likely to enjoy. J. E. P.

RAGMAN IN THE LIME LIGHT.

One result of a world-wide scarcity of wool is the prominence of the ragman. Pointing to a basket of cuttings, a Chicago tailor said: "Two years ago I could not give that stuff away, but lately a dozen dealers have visited my store daily making good offers for it. There is a well-founded reason for this appreciation in the case of the rag bag. Rags are worth \$2.50 to \$3.00 per hundredweight when picked for gun cotton. The European war is the cause. Whenever the price of anything goes up, it is because of the war, but in the case of rags, it is legitimate. Powder companies are filling big contracts and must have rags.

The practice is to pick rags, take out anything fit for gun cotton and turn the rest over to the shoddy dealer. Anything with two ends is valuable for cloth making purposes. The supply of coarse wools for that purpose is deficient, and trimmings that fall from the cutter's table are valuable.

Officers of National Wool Growers' Association

F. J. HAGENBARTH, President
Spencer, Idaho.

A. J. KNOLLIN, Eastern Vice-President
Chicago, Ill.

M. I. POWERS, Western Vice-Pres.
Flagstaff, Arizona.

F. D. MIRACLE, Treasurer
Helena, Mont.

S. W. McCLURE, Secretary
Salt Lake City, Utah.

Executive Committee**ARIZONA.**

Hugh Campbell, Flagstaff.

CALIFORNIA.

F. A. Ellenwood, Red Bluff.

COLORADO.

L. E. Thompson, Las Animas.

IDAHO.

Nathan Ricks, Rexburg.

ILLINOIS.

W. C. Coffey, Urbana.

IOWA.

V. G. Warner, Bloomfield.

KENTUCKY.

W. T. Chilton, Campbellsburg.

MICHIGAN.

A. A. Wood, Salline.

MONTANA.

E. O. Selway, Dillon.

NEBRASKA.

Robert Taylor, Abbott.

NEVADA.

A. E. Kimball, Elko.

NEW MEXICO.

Prager Miller, Roswell.

OHIO.

S. M. Cleaver, Delaware.

OREGON.

J. N. Burgess, Pendleton.

SOUTH DAKOTA.

F. R. Cock, Pierre.

TEXAS.

B. L. Crouch, San Antonio.

UTAH.

Thomas Austin, Salt Lake City.

VERMONT.

E. N. Bissell, E. Shoreham.

WASHINGTON.

F. M. Rothrock, Spokane.

WEST VIRGINIA.

S. C. Glat, Wellsburg.

WISCONSIN.

Arthur Stericker, Manitowoc.

WYOMING.

Joseph Kinney, Cokeville.

May, 1916.

THE NATIONAL WOOL GROWER

43

Daley's Ranch Good For One Bath.

At the Daley shearing shed, a few miles west of Rawlins, Wyoming, several thousand sheep are being shorn and the wool is being graded and baled under the direction of the National Wool Warehouse and Storage Company, as was done last year. It was Mr. Daley's intention to build a new shearing plant at this point, but on account of press of other work, he was unable to have it completed, but a new plant will be erected for next year's shearing.

One of the novel features at the Daley shed is the bath house erected for the use of the employees. The photograph of this house appears on another page. The house is of galvanized iron and contains three porcelain bath tubs. Every evening when shearing is stopped, the man in charge of the bath house issues from twelve to fifteen tickets, each good for one bath, and with each ticket is given a bath towel. The shearer is then allowed to take his bath without any charge upon the condition that he cleans up the tub when he is finished. The water for this bathing is hauled from a well and stored in a tank holding about 700 gallons. This is then heated by a stationary heater so that the bather can have hot or cold water as may be desired. Mr. Daley is very much pleased with his bathing arrangements and feels that the shearers and other employees appreciate the efforts he is making to promote their comfort. The men all seem to appreciate the kindness that has been done them, and there are more calls for baths than there is water to accommodate them.

Adjoining the bath house, Mr. Daley has erected a galvanized iron house as sleeping quarters for the shearers, and the tent city, so common around most shearing sheds, is a thing of the past at this Wyoming ranch.

Many of our members have still forgotten to pay their dues.

CHICAGO MARKET.

Top sheep prices and range on bulk:

Week Ending—	Bulk.	Top.
January 8	\$ 6.00@ 7.25	\$ 7.50
January 15	6.75@ 7.50	8.00
January 22	7.25@ 8.25	8.50
January 29	7.00@ 7.80	8.25
February 5	7.00@ 7.75	8.25
February 12	7.00@ 8.25	8.35
February 19	7.00@ 8.10	8.50
February 26	7.25@ 8.35	8.75
March 4	7.25@ 8.50	9.25
March 11	7.65@ 8.50	8.90
March 18	7.85@ 8.60	9.25
March 25	7.25@ 8.85	9.35
April 1	7.60@ 9.10	9.25
April 8	7.35@ 9.00	9.25
April 15	7.50@ 8.25	9.40
April 22	7.40@ 8.75	9.00
April 29	8.00@ 8.75	9.25

Top lamb prices and range on bulk:

Week Ending—	Bulk.	Top.
January 8	\$ 9.00@10.40	\$10.60
January 15	10.00@10.85	10.90
January 22	10.15@10.90	11.15
January 29	10.00@10.85	11.10
February 5	10.15@11.10	11.25
February 12	10.50@11.25	11.50
February 19	10.75@11.35	11.50
February 26	10.50@11.35	11.50
March 4	10.50@11.35	11.50
March 11	10.65@11.50	11.55
March 18	10.75@11.40	11.00
March 25	11.00@11.60	11.70
April 1	9.50@11.80	11.90
April 8	9.15@11.40	11.50
April 15	9.25@11.85	12.00
April 22	9.15@11.60	11.65
April 29	8.85@11.50	11.65

THE SHEARING SHED

AT FAIRFIELD, UTAH

At Fairfield, Utah, a fairly good shearing shed has been in use for some years. While it contains few of the features that have characterized latter day sheds, yet it is very good in many respects. By the expenditure of \$500.00 this shed could be remodeled so as to offer every facility for putting up the wool in any style that could be desired. The time has come when these Utah woolgrowers have got to handle their wool in a better manner. At this Fairfield shed, we have seen some excellent wool, and every pound of it should be graded and the tags removed and the wool baled, and then offered to the buyers.

Stud Rams RAMBOUILLETS Range Rams



Our Champion C. Ram at Frisco

We offer for sale a large number of registered Rambouillet stud rams and range rams. Will sell in lots of one to a carload. We invite your careful inspection of our flock.

R. A. JACKSON, Dayton, Washington.

Rambouillets



Rams Ewes

We have for sale a large number of registered and unregistered Rambouillet Rams. Also a limited number of good ewes.

W. D. CANDLAND

Mt. Pleasant,

Utah

RAMBOUILLETS

We maintain one of the largest registered flocks in the country. Its quality is attested by show records in the strongest competition, and the sale of stud rams to the leading breeders of this and foreign countries.

We offer a number of stud rams of such breeding and individual merit as should place them in the best flocks.

Also choice rams and ewes for founding and improving any flock.

Size and form combined with long heavy fleeces.

Their breeding insures their prepotency. We invite the correspondence and inspection of those who appreciate quality and are willing to pay a reasonable price for good animals.

ROSCOE WOOD

Douglas, - Wyoming

A. A. WOOD & SON

Saline, - Michigan



One of My Stud Rams

CALIFORNIA RAMBOUILLETS

My Rambouillets are large, smooth and well covered with heavy fleeces of long white wool. They are bred in a high, dry country and are very hardy. I have 2000 one and two-year-old rams for this season. If you visit the Fair, call and see my flocks. My prices are reasonable and my rams will suit the range country.

CHAS. A. KIMBLE,
Hanford, Cal.



One of My Stud Ewes

RAILROADS AIDING THE PACKER

Certain livestock carrying railroads in the East are openly accused by the National Live Stock Exchange of playing into the hands of the packers in their efforts to control prices. There is evidence of this in certain concentration point privileges extended to packers notably in Iowa and Minnesota. The railroads have constructed yards at considerable expense, which are, as a matter of fact, exclusively for the benefit of packers. Theoretically other shippers are entitled to use them, but should one of them make that attempt, he would discover that he is laboring under a delusion. These concentration points are mainly for the purpose of handling hogs and furthering control of prices at the open market by cheapening and facilitating direct country buying, but the principle involved is elimination of competition at the market.

Railroad officials assert that these privileges are not granted voluntarily, but as the packers furnish them with a large volume of tonnage, they are compelled to "come across." They are also accused of doing switching gratuitously for the packers and allowing them to "fill" loads in transit on a through rate, while if other shippers stop for that purpose, they are charged the sum of two locals.

While the railroads are actually giving the packers a large sum annually in the way of privileges, they are trying to increase rates to other shippers. Until they cease giving packers privileges, the National Live Stock Exchange contends they do not come into court with clean hands and are not entitled to consideration. J. E. P.

THE HAY SHEARING SHED AT BITTER CREEK, WYOMING

John Hay, of Rock Springs, Wyoming, has for some years owned a shearing plant at Bitter Creek, Wyoming, where about 60,000 sheep are shorn. The old plant was a fairly good one where hand shears were used.

Last year Mr. Hay decided to erect a new plant but did not get around to it. He has now taken the old plant and added to it and remodeled it so that it is one of the best large plants in America. The new plant is equipped with twenty-four machines. A large sweating room holds the sheep in the south end of the plant. The machines are set in the center of the plant with catch pens on each side. The shorn sheep go down a chute under the shed into the individual counting pens. There is storage room under the shed for four thousand shorn sheep. At the end of the shearing room four grading tables are installed and all the wool in this plant is graded and baled under direction of the National Wool Warehouse. Immediately adjoining the place, where the wool is baled, is a large space where the baled wool is stored. This storage room has a capacity of 600,000 pounds of baled wool. The wool will be kept in this shed until it is loaded on the cars and a side track runs to the platform of the shed.

At this plant, the shearers were turning out about 150 sheep a day and were doing very good work. The shed was constructed after Mr. Hay's ideas, and we must say that it is so arranged as to permit of very economical operation. It is unusually well lighted, and we do not see where it can be improved upon.

FROM CENTRAL OREGON.

We had a pretty hard winter in this section, but the stock came through in good shape. In some few cases there was a larger loss than usual. The lambing appears to be good as the weather has been fine so far, and the heavy part of the lambing is now over, but in general lambing won't be finished before the fifteenth of May.

Sheep have been selling at high prices this spring. Ewes before lambing sold up to \$10.50; mixed yearlings after shearing at \$4.75; and straight wethers up to \$4.00.

There has been some contracting in fine wool from 20 to 22 cents.

JAMES CANT, Oregon.

FEED FOR EWES.

Regarding the article published in the March National Wool Grower relative to the lambing in sheds at Gooding, Idaho, one of our Colorado readers asked Governor Gooding to answer the following questions:

1. How soon before lambing do you start feeding grain to your ewes?
2. Do you feed chopped barley or whole barley?
3. Is your alfalfa ground or chopped, and, if chopped, how long do you cut it?
4. What kind of chopper do you use for the alfalfa?

Governor Gooding answers these questions as follows:

1. I have found from experience that feeding grain of any kind to ewes is a dangerous thing before lambing unless the grain is free from smut. I have fed cottonseed cake anywhere from thirty to sixty days before lambing with good success, but never more than three ounces per day should be used. I am, however, satisfied that with plenty of good alfalfa hay or clover hay no grain is required until after lambing.
2. Chopped barley is preferred to whole barley.
3. My hay is chopped in lengths about one-fourth to one-half inch.

4. The chopper we used is a Smalley chopper. Considerable care should be used in purchasing this machine, depending upon the amount of hay to be cut. I am satisfied that it is economy to purchase the forty-inch machine as it will chop from 35 to 40 tons a day.

WOOL IN UMATILLA COUNTY, OREGON

Up to the present time a small number of clips have been sold around Pendleton, and further west toward Echo, Oregon, practically all the wool has been sold. The Antone Vey clip of fine wool sold at 23¼ cents; the Charles Mathews clips of fine wool at 23 cents; and the J. E. Smith at 24 cents. We understand that the Cunningham Sheep and Land Company has been offered 24 cents for its clip, which offer has been refused.

Reports from eastern Oregon are that the spring has been cold and backward and that the percentage of lambs saved is hardly up to the average.



We are breeding big, smooth bodied, heavy woolled, open faced Merino Rams, 700 yearlings for next season.

L. U. SHEEP COMPANY
DICKIE, WYOMING

RAMBOUILLETS

Stud Rams Range Rams

We have for sale 350 Yearling Rambouillet Rams. These rams are large, smooth, well covered with long staple wool, are raised at a high altitude and are very hardy. Our foundation Ewes are from the choicest American flocks.

J. P. VAN HOUTEN CO.
Shoemaker, New Mexico

Have you paid your \$5.00 dues yet?

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RAMBOUILLET
STUD RAMS**

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RANGE RAMS

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**EWES for
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Champion B. Type Flock, Panama Exposition

**CORRIEDALE
RAMS and EWES
FOR SALE**

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Orders taken and filled
for future importation.

*Write for Information
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REGISTERED HAMPSHIRE FOR SALE!

Seventy-five Rams, raised in the Mountains of West Virginia; 75 young ewes from imported sires and dams.

Will contract now for July delivery. Information gladly given about Virginia and West Virginia as a sheep country.

H. W. McLAUGHLIN
RAPHINE, VA.

RAMBOUILLETS



One of Our Stud Rams

For this season we offer
150 two-year-old Rambouillet Rams.

900 Yearling Rambouillet Rams.

300 Lincoln-Rambouillet Crossbred Yearling Rams

150 Yearling Hampshire Rams.

**Cunningham
Sheep &
Land Co.**

Pilot Rock, Oregon

PAST PRICES IN CALIFORNIA.

Enclosed you will please find my check for \$15.00. Said amount to pay for fifteen subscriptions to the National Wool Grower, sent to California woolgrowers.

Sheep and lambs are very high here, quite different prices from which I have sometimes sold in past years. I call to mind some twenty years ago, when for the sake of a sale, I allowed a man to pick a band of ewes and lambs out of five bands I had, at \$1.50 for ewes and 50 cents for lambs. And further, for the sake of a sale delivered them east of the mountains, near the line of Nevada. The sheep were to go to Utah. The sheep and lambs were in fine condition and first class Merino ewes. I sheared 11,000 sheep in Lassen county one fall, paid a half cent per pound to have it hauled to the narrow gauge railroad, at Amedee, \$2.00 per ton to have it transferred from the narrow gauge cars at Reno, Nevada, one cent per pound freight to San Francisco, state toll, drayage, storage, commission and insurance and the wool was sold at 4½ cents per pound. It was a good clip of wool. Since the fall of 1872 I have seen some mighty lean years in the sheep business. In the spring of 1872 wool sold as high as 52½ cents per pound, here in Red Bluff. I have seen spring wool sell here as low as 9 cents. I mean good wool. I sold 3000 fat wethers once at \$1.75 per head, full fall fleece on, and drove them two hundred miles for delivery. A man came to me once to buy 1000 ewes. I offered him the choice of four bands at \$1.25 per head in September, then not bred. He thought the price too high and left. In November after being bred he looked at them at \$1.50, price too high and left. He came again February 25th, the day they were due to begin to lamb. I sold him 1000 full bellied ewes at \$1.75 and gave him range till May 10th, to run them on. Good ewes and in fine condition. Far above the average sheep of Tehama County. I have seen some lean years in the sheep business.

L. L. McCOY, Red Bluff, Calif.

OUT OF SHEEP.

I am no longer in the sheep business, having closed out last fall. The range here is about gone; settlers are everywhere. There are a few bands in these parts yet, but they are having a hard time of it finding sufficient range and water. I have gone into the cattle business now as most of those that have closed out their sheep holdings are doing that.

GOTTLIEB MILL, Montana.

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Parker's Star Brand Peas and Tomatoes



STAR BRAND

BETTER QUALITY AT THE
SAME PRICE

Demand PARKER'S STAR BRAND, accept no substitute

PARKER'S Peas and Tomatoes are packed by experienced canners in the most up to date plants, and are guaranteed to be perfectly fresh and wholesome.

The W. J. Parker Canneries
OGDEN, UTAH

The largest packers of peas and tomatoes
in Utah

SHEEP IN NEVADA.

F. W. Wilson.

The high market price for sheep during the past year has drawn particular attention to the present condition of the industry, which has shown little or no improvement in the present type of sheep grown over that of years gone by. It has, of course, brought about a slight change in their feed and care, owing to the increase in prices for sheep. More breeding ewes are being brought in off the range and fed during the winter months to insure against heavy lambing losses. Quite a number of the old breeding ewes are at present being held over and fed in hopes of getting a crop of lambs before they are finally marketed.

Very few sheep men realize the present necessity of improving their breeding stock. Large numbers of flockmasters now purchase their breeding ewes and dispose of their entire crop of lambs as soon as marketable, depending on other breeders to furnish their breeding stocks as needed and paying market prices for the new supply. The practice of mating ewes carrying a large per cent of Merino blood to the heavy mutton type of ram and then disposing of the entire crop of lambs is common in the state of Nevada. This system does not permit of any improvement in the type of breeding ewe.

The question of procuring ewes is fast becoming a serious one with our sheepmen. Many of them do not realize the necessity of improvement, while the few sheep operators who realize the situation have not thought out a definite method of improving their breeding flocks. It is a well known principle that any standard product will command a much better price than a mixed lot, and the same, of course, holds true with mutton and wool. Very few flocks of sheep in Nevada are uniform in type, breeding and size. The wool is sadly lacking in uniformity as well.

Western flockmasters, as a rule, believe that our conditions of feed and climate demand certain types of sheep

developed in our own country. This is true in a measure only. Certain types of rams are purchased each year in the middle western states and give very good satisfaction. It is then rea-

sonable to expect good results with sheep that have shown their worth in a similar environment with our own.

The popularity of the crossbred sheep is growing rapidly, due to the

MORTGAGE LOANS FOR SHEEP MEN

Woolgrowers having ample ranges and large flocks are invited to correspond with us regarding long time mortgage loans. Established 1890. Assets \$15,000,000.

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APPROVED
SHEEP
MARKING INK

THE UNIVERSITY OF WYOMING
AGRICULTURAL COLLEGE
AND EXPERIMENT
STATION

January 30, 1915

Heath & Milligan,
1833 Seward Street,
Chicago, Illinois.

Gentlemen:

We have looked over the sheep which we have branded with your sheep marking ink. In every case so far the paint has stood the weather as well as our standard paint. We have also scoured up a sample of wool which had been saturated with your ink and then dried in the laboratory since October 19. It scoured out perfectly.

Very truly yours,

J. H. H. Wool Specialist.

SULPHUR

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FROM A BAG TO A CARLOAD

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WOOL BROKERS—216 SUMMER STREET, BOSTON, MASS.

Solicits wool shipments for direct sale to the mills. Always sold subject to shippers consent.
LIBERAL ADVANCES. BEST OF REFERENCES.

increased length of staple and weight of fleece, coupled with the greater mature size of the offspring over that of the common Merino dam.

It is a fairly well established fact that certain breeds and types of farm animals are easily acclimated and readily adapt themselves to new conditions of climate and feed. This fact evidences the possibility of importing animals for the immediate improvement of our flocks.

Western conditions demand a sheep that will herd well, produce a marketable lamb, and a profitable clip of wool, and withstand adverse conditions of range and climate.

At the present time it is quite surprising to note the demand for the crossbred ewe in the western country, commonly thought to be suited only to the hardy and popular Merino. The great drawback with this type of ewe is the difficulty in keeping the type up to the standard or halfbreed Cotswold or Lincoln and Merino ewe. A second or third cross of heavy rams on the Merino foundation destroys the admirable herding qualities of the Merino. The

crossing back of Merino rams soon causes the crossbred type to lose size and type of wool imparted by the long wool rams in former generations.

The question of uncertainty of tenure upon the grazing lands, arising from a lack of well defined governmental policy relative to the public domain, has tended towards discouraging range sheep owners towards a definite and constructive plan of breeding up their flocks. New Zealand faced much the same conditions less than forty years ago. Her climate and conditions are, perhaps, a little more conducive to the production of a long staple of wool; however, we find the popularity of the longer wool growing. The frozen meat trade in Australia brought out the advantages of a larger type of sheep, better suited for mutton purposes, and we are now facing this situation by the increased demand for mutton.

It has been stated that fully 90 per cent of the sheep of New Zealand have been bred entirely away from the Merino type, excepting, of course, the percentage of blood of the breed contained in the Corriedales which is the popular type bred in the Dominion at the present time. Corriedales are the result of the common practice of crossing long wool rams, such as Cotswolds, Lincoln, English Leicester and Border Leicester upon Merino ewes.

At present we must confine our endeavors to procure the desired type by the use of two distinct breeds, while our New Zealand sheepman has carefully bred a type which meets his requirements. This type has gradually taken on the form of a distinct breed and during the last four or five years large numbers of Corriedales have been recorded in the flock book of the New Zealand Sheep Breeders' Association. A number of successful western sheepowners have imported a few Corriedales and believe that they will be of great influence in improving the present types of range sheep, for they possess some very valuable characteristics in comparison with the present range type, chief among them being the desirable herding instinct, size,

May, 1916.

mutton conformation, with a fine combination of long staple and superior quality of wool.

HIGH OFFERS FOR WOOL.

In the northwestern intermountain country, the wools grown in the Cokeville district of Wyoming generally command the top price. These wools are practically all crossbreds, grading from one-fourth to three-eighths blood and are of light shrinkage. We have been advised that Joseph Kinney, of Cokeville, has been offered 31 1-4 cents for his clip; Peter Olsen, of Cokeville, has been offered 31½ cents, but both of these offers have been refused.

WOOL LOST.

Our readers have noticed the press dispatches concerning the sinking of the British steamers Ashburton and Achilles. The Ashburton was carrying 17,000 bales of Australian wool to London and the Achilles had on board 16,000 bales. This makes a total of around 11,000,000 pounds of wool sunk in these two vessels.

UTAH WOOL LIGHT.

The reports we have received indicate that the Utah wool clip is much lighter than last year. The wool is as well grown as usual but is very free from dirt. One band of ewes that sheared eight pounds last year has only yielded six and one-half pounds this year. Two reasons are assigned for the light fleece. It is thought that the dipping last fall took some weight out of the fleece and the heavy snow last winter kept down the dust.

IDAHO WOOL SELLING.

Several Idaho clips have sold recently at from 24 to 29 cents. The clip of Governor Gooding is reported sold at 24 cents. About 55 per cent of this clip is fine and the balance braid and crossbred.

James Farmer and O. F. Bacon have sold their clip of crossbred at 29 cents.

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WOOL COMMISSION MERCHANTS
PHILADELPHIA, PENN.

Solicit consignments and offer best facilities for the handling and sale of wool. Cash advances made on bills of lading.

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TO EXTERMINATE RABID COYOTES

Washington, D. C.—The appropriation by Congress in the Urgent Deficiency Act of \$75,000 for the control of rabies among coyotes in the West has enabled the Bureau of Biological Survey of the U. S. Department of Agriculture, to put five inspectors and 190 hunters in the field, in addition to its existing organization. These men are to serve in Oregon, Nevada, California, and Idaho, and along the border in Utah. In addition to these measures the Nevada Rabies Commission has signified its intention of expending a large sum of money under recommendations made by the Biological Survey, and it is probable that other states will do likewise. Stockmen and ranch owners are cooperating by furnishing horses and forage free of charge. The importance of preventing the spread of the disease is fully realized.

The coyote has always been a pest to stockmen, but with the advent of rabies it has become a serious danger

to persons as well as to stock. In many sections of Oregon, Idaho, California, and Nevada, parents are afraid to send their children to school unless they are well guarded, and there is always danger that domestic dogs will be bitten by the mad animals and spread the disease to the families of their owners. In Oregon and Nevada over 100 persons have received the Pasteur treatment for rabies within the past three years and stock interests have suffered severely. In one feed lot in Winnemucca, Nevada, a single coyote caused the loss of 23 head of three-year-old beef steers.

Although this is regarded as the most serious, it is not the first outbreak of rabies among coyotes in the Western states. In 1911 the disease made its appearance in Wallowa County, Oregon, and spread southward. This infestation still continues. In the spring of 1915 the disease made its first appearance in northern Nevada, and at the present time southwestern Idaho, northeastern California, and ap-

proximately the northern half of Nevada are infested.

The normal coyote is cunning but cowardly and has a particular aversion to the scent of a human being. When stricken with rabies, however, it does not hesitate to snap at everything in reach and to attack men as well as dogs and cattle. In this condition it does not eat and consequently cannot be killed by poisoned baits.

In controlling the disease the Bureau of Biological Survey purposes first to prevent its spread by killing off the coyotes along the borders of the infested districts. After this has been done, the infested areas themselves can effectually be rid of the animals and the disease stamped out.

We invite you to inspect carefully the list of entries for the Salt Lake Ram Sale, August 30 and 31, and September 1 and 2.

Many of our members have still forgotten to pay their dues.

PROTECT YOUR SHEEP FROM COYOTES

AUTOMATIC FLASH GUN

Has a SWINGING, REVOLVING SEARCH LIGHT that burns 10 hours without attention. Explodes 100 times in 10 hours at intervals of 5 to 15 minutes.

The cost of the light and explosions for 10 hours is about 7 cents

THE GUN GIVES OFF AN ODOR THAT MAKES COYOTES SUSPICIOUS.
OPERATES IN WIND, SNOW OR RAIN.

NO CLOCK WORKS
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THIS AUTOMATIC FLASH GUN IS THE FIRST AUTOMATIC EXPLODING DEVICE WITHOUT MACHINERY AND CARRYING MOVING SEARCHLIGHT THAT HAS GONE THROUGH THE PATENT OFFICE.

Just Light the Lamp and the Big Noise and Moving Light Begins.

Write today for Full Information and Price.

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WOOL CAR'S LONG TOUR.

Washington, D. C.—The wool car of the U. S. Department of Agriculture which left Livingston, Montana, on January 19th, has given demonstrations in more than 50 towns of the important sheep-growing states to at least 6,000 persons directly interested in wool growing. Since leaving Livingston, the car has been touring Montana, Idaho, Wyoming and Utah in order to demonstrate to sheepmen that the production of better wool means more money for them. The tour is the result of co-operative arrangements made between the Bureau of Animal Industry of the Department of Agriculture and the agricultural colleges of the four states named.

The trip of this car is regarded by wool specialists as the most important educational effort that has yet been made in aid of the sheep industry, which provides 9 states, embracing one-third of the total area of the country, with the greater part of their income. In recent years a wide interest has been aroused in the better preparation of wools for market. At the same time, however, there has been in some quarters a certain doubt whether the financial returns would repay the attention and expense involved in a departure from the present methods, or rather the present lack of methods. The more progressive sheepmen have realized that the success of the movement is dependent upon general co-operation among the woolgrowers. This can hardly be expected in the absence of familiarity with the market grades of wools and a knowledge of the wide difference in values possible in wools of the same grade. It is to furnish this information to practical sheepmen that the demonstration car is now making its tour.

In the car are live sheep with fleeces representing the main market grades grown in the section in which the car is traveling. Above the crates holding the sheep are cases containing similar fleeces, the grade, shrinkage and value of which are clearly indicated. Stationary magnifying glasses show the

distinctions in the fineness of the various grades of small samples. Considerable space is also devoted to exhibits demonstrating the way in which the value of wool depends upon its natural shrinkage, strength and character. The methods of branding, packing and tying are also shown.

Many of our members have still forgotten to pay their dues.

WYOMING WOOL LIGHT.

Reports from many sections of Wyoming where shearing is in progress are to the effect that the wool is coming off lighter than usual. In some cases the fleece weighs from one-half to one pound less than formerly.

Do not forget the Ram Sale.



Colt Automatic Pistol—Gov. Model. One of Browning's Patents.

Sheepmen Spend Thousands of Dollars with us every year which is good evidence that we have a lot of things the sheepman needs. Our 150 page illustrated catalog is sent Free on request.

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**WHERE IT IS SUMMER
ALL THE TIME
EXCURSION TICKETS ON SALE DAILY
LIMIT SIX MONTHS
THREE TRAINS DAILY**

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"PERFECT" Identification

There can never be any question about ownership, when an animal shows a "PERFECT" EAR TAG, with number of animal and name and address of owner stamped thereon. Cost small. Prevents loss of stock.



The "PERFECT" TAG should be used because it is the lightest tag manufactured; made of aluminum; non-corrosive and non-poisonous. This ear tag is endorsed by stockmen all over the United States.

Send for FREE Sample Tag and Prices.

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Leading Implement and Hardware Dealers

WOOL GROWERS SUPPLIES

At 50 Places in Utah and Idaho

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SALT LAKE CITY

ROOMS WITHOUT BATH
\$1.50 and \$2.00 PER DAY
WITH BATH \$2.50 and UP.

"The very best of everything at
sensible prices"

CULLEN HOTEL

SALT LAKE CITY, UTAH

FRED J. LEONARD, Mgr.

Headquarters for Sheepmen

More Sheep bought and sold in the Cullen
Hotel than in any hotel in the United States.

Rates \$1.00 and up

640 ACRE HOMESTEAD.

We have kept readers of this paper advised as to the efforts of Congress to pass a 640 acre grazing homestead bill. This bill passed the House of Representatives January 18, and while it was before the Public Lands Committee of the Senate, the various live stock associations who opposed the passage of any homestead bill before the land had been actually classified, had a delegation appear before this committee. The Public Lands Committee has, however, recommended for passage the House Bill with a few alterations. We ask our readers to peruse this bill most carefully, and, if they have not done so, to write their senators immediately setting forth their opinion of it.

The bill as now before the Senate is as follows:

An act to provide for stock-raising homesteads, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this Act it shall be lawful for any person qualified to make entry under the homestead laws of the United States to make a stock-raising homestead entry for not exceeding six hundred and forty acres of unappropriated unreserved public land in reasonably compact form: Provided, however, That the land so entered shall theretofore have been designated by the Secretary of the Interior as "stock-raising lands."

Sec. 2. That the Secretary of the Interior is hereby authorized, on application or otherwise, to designate as stock-raising lands subject to entry under this Act lands the surface of which is, in his opinion, chiefly valuable for grazing and raising forage crops, do not contain merchantable timber, are not susceptible of irrigation from any known source of water supply, and are of such character that six hundred and forty acres are reasonably required for the support of a family: Provided, That where any person qualified to make original or additional entry under the provisions of this Act shall make application to enter any unappropriated public land which has not been designated as subject to entry (provided

ed said application is accompanied and supported by properly corroborated affidavit of the applicant, in duplicate, showing prima facie that the land applied for is of the character contemplated by this Act), such application, together with the regular fees and commissions, shall be received by the register and receiver of the land district in which said land is located and suspended until it shall have been determined by the Secretary of the Interior whether said land is actually of that character. That during such suspension the land described in the application shall not be disposed of; and if said land shall be designated under this Act, then such application shall be allowed; otherwise it shall be rejected, subject to appeal.

Sec. 3. That any qualified homestead entryman may make entry under the homestead laws of lands so designated by the Secretary of the Interior, according to legal subdivisions, in areas not exceeding six hundred and forty acres, and in compact form so far as may be subject to the provisions of this Act, and secure title thereto by compliance with the terms of the homestead laws: Provided, That a former homestead entry of land of the character described in section two hereof shall not be a bar to the entry of a tract within a radius of twenty miles from such former entry under the provisions of this Act, which, together with the former entry, shall not exceed six hundred and forty acres: Provided further, That the entryman shall be required to enter all contiguous areas open to entry prior to the entry of any noncontiguous land: Provided further, That instead of residence and cultivation as required by the homestead laws the entryman shall be required to make permanent improvements upon the additional land entered before final proof is submitted tending to increase the value of the same for stock-raising purposes, of the value of not less than \$1.25 per acre, and at least one-half of such improvements shall be placed upon the land within three years after the date of entry thereof.

Sec. 4. That any homestead entryman who has not submitted final proof upon his existing entry, shall have the right to enter, subject to the provisions of this Act, such amount of contiguous lands designated for entry under the provisions of this Act as shall not, together with the amount embraced in his original entry, exceed six hundred and forty acres, and residence upon the original entry shall be credited on both entries, but improvements must be made on the additional entry equal to \$1.25 for each acre thereof.

Sec. 5. That persons who have submitted final proof upon, or received patent for, lands under the homestead laws, and who own and reside upon the land so acquired, may, subject to the provisions of this Act, make additional entry for and obtain pat-

ent to contiguous lands designated for entry under the provisions of this Act, which, together with the area theretofore-acquired under the homestead law, shall not exceed six hundred and forty acres, on proof of the expenditure required by this Act on account of permanent improvements upon the additional entry.

Sec. 6. That any person who is the head of a family, or who has arrived at the age of twenty-one years and is a citizen of the United States, who has entered or acquired under the homestead laws, prior to the passage of this Act, lands of the character described in this Act, the area of which is less than six hundred and forty acres, and who is unable to exercise the right of additional entry herein conferred because no lands subject to entry under this Act adjoin the tract so entered or acquired or lie within the twenty mile limit provided for in this Act, may, upon submitting proof that he resides upon and has not sold the land so entered or acquired and against which land there are no encumbrances, relinquish or reconvey to the United States the land so occupied, entered, or acquired, and in lieu thereof, within the same land-office district, may enter and acquire title to six hundred and forty acres of the land subject to entry under this Act, but must show compliance with all the provisions of this Act respecting the new entry and with all the provisions of existing homestead laws except as modified herein.

Sec. 7. That the commutation provisions of the homestead laws shall not apply to any entries made under this Act.

Sec. 8. That any homestead entrymen or patentees who shall be entitled to additional entry under this Act shall have, for ninety days after the designation of lands subject to entry under the provisions of this Act and contiguous to those entered or owned and occupied by him, the preferential right to make additional entry as provided in this Act: Provided, That where such lands contiguous to the lands of two or more entrymen or patentees entitled to additional entries under this section are not sufficient in area to enable such entrymen to secure by additional entry the maximum amounts to which they are entitled, the Secretary of the Interior is authorized to make an equitable division of the lands among the several entrymen or patentees, applying to exercise preferential rights, such division to be in tracts of not less than forty acres, or other legal subdivision, and so made as to equalize as nearly as possible the area which such entrymen and patentees will acquire by adding the tracts embraced in additional entries to the lands originally held or owned by them: Provided further, That where but one such tract of vacant land may adjoin the lands of two or more entrymen or patentees entitled to exercise preferential right hereunder, the

tract in question may be entered by the person who first submits to the local land office his application to exercise said preferential right.

Sec. 9. That any person who has heretofore acquired title to land under any of the homestead laws of the United States and who is the owner and occupant of the

land so acquired may purchase from the United States not exceeding three hundred and twenty acres of stock-raising lands, as designated by this Act, or unappropriated and unreserved lands valuable only for grazing contiguous to his said homestead, upon paying to the United States the sum of \$1.25 per acre for such lands, under such

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rules and regulations as may be prescribed by the Secretary of the Interior, which said land, together with the area theretofore acquired under the homestead laws, shall not exceed six hundred and forty acres.

Sec. 10. That all entries made and patents issued under the provisions of this Act shall be subject to and contain a reservation to the United States of all the coal and other minerals in the lands so entered and patented, together with the right to prospect for, mine, and remove the same. The coal and other mineral deposits in such lands shall be subject to disposal by the United States in accordance with the provisions of the coal and mineral land laws in force at the time of such disposal. Any person qualified to locate and enter the coal or other mineral deposits, or having the right to mine and remove the same under the laws of the United States, shall have the right at all times to enter upon the lands entered or patented, as provided by this Act, for the purpose of prospecting for coal or other minerals therein, provided he shall not injure, damage, or destroy the permanent improvements of the entryman or patentee, and shall be liable to and shall compensate the entryman or patentee for all damages to the crops on such lands by reason of such prospecting. Any person who has acquired from the United States the coal or other mineral deposits in any such land, or the right to mine and remove the same, may re-enter and occupy so much of the surface thereof as may be required for all purposes reasonably incident to the mining or removal of the coal or other minerals, first, upon securing the written consent or waiver of the homestead entryman or patentee; second, upon payment of the damages to crops or other tangible improvements to the owner thereof, where agreement may be had as to the amount thereof; or, third, in lieu of either of the foregoing provisions, upon the execution of a good and sufficient bond or undertaking to the United States for the use and benefit of the entryman or owner of the land, to secure the payment of such damages to the crops or tangible improvements of the entryman or owner, as may be determined and fixed in an action brought upon the bond or undertaking in a court of competent jurisdiction against the principal and sureties thereon, such bond or undertaking to be in form and in accordance with rules and regulations prescribed by the Secretary of the Interior and to be filed with and approved by the register and receiver of the local land office of the district wherein the land is situate, subject to appeal to the Commissioner of the General Land Office: Provided, That all patents issued for the coal or other mineral deposits herein reserved shall contain appropriate notations declaring them to be subject to the provisions of this Act with reference to the disposition,

occupancy, and use of the land as permitted to an entryman under this Act.

Sec. 11. That lands containing water holes or other bodies of water needed or used by the public for watering purposes shall not be designated under this Act, but may be reserved under the provisions of the Act of June twenty-fifth, nineteen hundred and ten, and such lands heretofore hereafter reserved shall, while so reserved, be kept and held open to the public use for such purposes under such general rules and regulations as the Secretary of the Interior may prescribe: Provided, That the Secretary may, in his discretion, also withdraw from entry lands necessary to insure access by the public to watering places reserved hereunder and needed for use in the movement of stock to summer and winter ranges or to shipping points, and may prescribe such rules and regulations as may be necessary for the proper administration and use of such lands.

Sec. 12. That the Secretary of the Interior is hereby authorized to make all necessary rules and regulations in harmony with the provisions and purposes of this Act for the purpose of carrying the same into effect.

Passed the House of Representatives January 18, 1916.

LAMBING IN WESTERN CANADA

I enclose check for \$2.50, for which please send the "Wool Grower" for one year to J. Peacock, Alberta, Canada, and credit my account with the balance.

We are always anxious to receive The National Wool Grower, for it seems to put energy into the sheep business, even in Canada.

We have had a very prosperous season so far, and the sheep wintered well although the winter was the coldest on record for many years in this section.

The flockmasters are now making preparations for lambing which will commence the fifteenth of April. However, I have already lambed 1,000 head of them in February, on the open prairie. I enclose a photograph of them together with one of my Romney rams. I have great faith in the Romneys and think they will greatly improve the sheep in this country.

I wish the Wool Grower every success.

R. C. HARVEY, Alberta, Canada

RAISING SPRING

LAMBS IN IOWA

By William Hager.

The earliest spring lambs on the Chicago market this year were contributed by Allen Maxwell of Defiance, Iowa, and sold at \$17.00 per hundred-weight. Mr. Maxwell is certainly demonstrating that the small farm flock is profitable. His own statement of how he does it is interesting. In a letter he says:

"I have been asked by so many people as to how I raise what they call the 'Hot House Lambs' for Easter, so decided to tell you a few of the facts, but will say that there are more things pertaining to this work that I cannot tell than there are that I can tell.

"First. I commence about three weeks before time of breeding to give the ewes a small ration of corn, not all they will eat but enough to make them commence to look better and gain some flesh, and I find that as soon as they commence to pick up in this way they commence to breed and I have practiced this for three years beginning a little earlier each year to feed them, and I believe the corning brings them in earlier. Last year I commenced to feed corn the forepart of July and by August 1st the ewes had begun to breed. After they are bred they go back into the grass and rough feed such as they can get.

"Second. About two weeks before the lambing time I commence to feed a dairy feed to make milk for the young lambs when they come. Last year I fed a combination of about 500 pounds of ear corn ground cob and all, 100 pounds of oats ground together after which I mix about 100 pounds of bran. I also feed with this alfalmo—the pea green alfalmo hay, and of this I use 100 pounds, and 100 pounds of the mixed feed to sixty head of ewes each day. The mixed feed is fed wet, mixing it with water at the time of feeding and making it just as wet as it can be—almost sloppy, and then feed in the galvanized trough. The idea of mixing it with water is to get the sheep to take the moisture, for they

will not drink as much water as they really need.

"I have a basement barn which is warm all the time anyway, but can be made warmer when needed by putting in more sheep as the occasion demands this only during the lambing time, and after a lamb is a week or so old he can be transferred to another barn where it is not so warm, but the lamb should never be allowed to run at large—they should be kept in the barn from the time they are lambled till they are shipped.

"After the lambs begin to eat I have a pen fixed that they can get to the feed any time they wish and have a self feed for them supplied with the same feed as used for the ewes, and also have a pen of shelled corn but do not mix the feed for them—each feed is supplied with the different feeds, corn, oats, bran, alfalmo, so they can take their choice and eat that which they like the best.

"I put four ewes in a separate pen to see how much water they took with their feed, and found that the four took one bushel of water each day mixed with their feed, and also had water they could get at any time they cared to drink.

"From the time I commence to feed for milk about two weeks before lambing time I take the salt from the ewes

and they are never allowed any more salt until after the lambs are shipped and the lambs never get a taste of salt. Since following this practice I have never had a case of white scours among my lambs. I contend that salt

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22x24 in.	12.75 3.50	30x4 1/2 in.	21.50 5.75
30x4 in.	13.75 4.25	32x4 in.	21.00 5.50
32x4 in.	15.75 4.50	32x5 in.	25.50 6.00

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fed to lambs or their mothers when they are feeding the lambs is the cause of the scours, and we all know that such things are detrimental to the healthy condition of an animal.

"I have been raising these early lambs for about five years now, raising about fifty lambs each year, and they have been sold by the firm of Rosenbaum Brothers & Co., Chicago, each year, and below I give prices I received during the past five years: 1912, 12 cents per pound; 1913, 15 cents per pound; 1914, 14 cents per pound; 1915, 15 cents per pound; 1916, 17 cents per pound. I believe that I am safe in making the statement that my lambs have topped the Chicago lamb market each year, and anyone wishing verification of this can write to Messrs. Rosenbaum Bros. & Co., who can give them the facts."

Mr. Maxwell is not disposed to keep his light under a bushel and his experience ought to be valuable to those contemplating growing early lambs. There is good money in this business where a farmer is prepared to give the care which is essential to success. It has been my privilege to sell Mr. Maxwell's lamb each season. This year his consignment comprised forty head averaging fifty-seven pounds and the price \$17.00, per hundredweight, created a new record.

The outlook for high prices for range lambs during the coming season is excellent. There will be a conspicuous shortage in both the native and mid-southern crops, and wool is destined to sell high right along. The Chicago shipping outlet will be open removing a handicap under which the whole trade suffered last year. My prediction is that a new set of records will be hung up and that unless something unforeseen happens, it will be the most profitable range season in the history of the business.

NO APRIL MARKET BREAKERS.

Texas is usually responsible for a severe break in values of heavy sheep during April, but nothing of the kind happened this year. The Texas drouth

was the reason. Under normal conditions fat Texas sheep begin showing up at southwestern markets early in April. Kansas City received them last year as early as April first, but up to the twentieth of the month not a single shipment has reached that market this year. As a result shorn sheep were on an \$8.00@8.25 basis and woolled sheep were worth \$9.00@9.40 per hundredweight.

The Texas drouth was a hardship not only to sheep but cattle raisers, and deprived packers of a lot of fat beef and mutton which they needed badly to tide over a period of scarcity in the north.

J. E. P.

THOMPSON ON THE WOOL PROSPECT

"History shows that wool has always remained high in price for a long period after the termination of every war," said Robert B. Thompson, "and if precedent is worth anything materially lower prices are not likely for several years to come, no matter how production may be stimulated. The clothing needs of a vast population which will be increased by the return to active civil life of millions now engaged in military service must be provided for. We must reckon with lessened wool production in most producing countries, consequently the use of substitutes will exert little influence on prices. In this country stocks of raw wool are low, mills are running to full capacity and both purchasing power and consumption needs are immense. The whole industry is in an unusually strong position.

"While there has been less energy displayed by dealers in contracting wool, growers must not overlook the fact that such tactics on the part of buyers are seasonable and often prove effective in lowering values by arousing concern among growers and dislodging their holdings. The practice of placing wool under contract while it is still on the sheep's back is pernicious, anyhow, and adverse to the interests of the grower. It is speculation rather than merchandising and has a

tendency to discourage putting up wool in better condition, reducing competition among buyers, especially when wool is in the bag and ready for sale.

"Reverting to the supply and demand problem, it will be well to remember that Great Britain and the continent of Europe produce more wool than any similar area in the world and the extent of demand on the holdings of these countries in supplying army requirements for fresh meat cannot be determined until the war is over. It is reasonable to assume, however, that the shortage of wool from that source will be great."

"THE SMALL FARM FLOCK" AGAIN

Some of the Eastern Agricultural Journals have taken up again the campaign in favor of "The Small Farm Breeding Flock." To many, this seems a hopeless task, in view of the ever present dog menace and other causes of failure. It is to be hoped, however, that the campaign will bear some fruit; with the present high prices as an incentive, no doubt many amateurs will take to heart the published stories of success and invest in ewes (if they are able to buy them).

It is certain that the dogs have been largely responsible for the rapid decrease of the Small Farm Flock. Other important causes have been internal parasites and the ignorance and negligence of owners. There is bound to come a time, not far distant, when the Western ranges will be so taken up that "Old World" customs will have to be imitated to an increasing extent. When necessity forces this reform, then probably the much discussed dog nuisance and other hindrances to the sheep industry will receive the attention which will result in the necessary remedial measures. Until that time, the majority of Eastern and Middle-Western farmers will continue to invest their time and money in deals involving less risk and less attention, and we need not look for any great increase in the number of "small farm

flocks." It has been suggested that when the farm women take upon themselves the management of small flocks of breeding ewes along with their poul-

try, then will come the long hailed era of ovine increase.

J. C. K.

Do not forget the Ram Sale.

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COMFORT TYLER, Secretary, 36 Woodland Ave., Detroit, Mich.

SHEEP MARKET AT OMAHA.

Omaha received approximately 150,000 sheep during April, practically the same number as a year ago. Two years ago the April run there was 178,000 and three years ago 181,000 arrived. The market was on a healthy basis all month, prices ruling high relative to eastern markets. Colorado was the chief source of supply. Toward the end of the month a sharp upturn occurred. At the beginning of April, these quotations were in effect:

Lambs, good to choice handy..	\$11.35@11.50
Lambs, fair to good handy.....	\$11.10@11.35
Lambs, fair to choice, heavy...	\$10.50@11.15
Lambs, clipped, handy	\$ 8.75@ 9.40
Lambs, clipped, heavy	\$ 8.25@ 9.00
Yearlings, fair to choice light..	\$ 9.25@10.50
Yearlings, fair to choice, heavy..	\$ 8.50@ 9.25
Wethers, fair to choice	\$ 8.25@ 9.40
Ewes, good to choice	\$ 8.50@ 9.10
Ewes, fair to good	\$ 7.75@ 8.50
Ewes, clipped	\$ 6.00@ 7.50

The top price on lambs at Omaha in April was \$11.65 against \$11.75 in March and \$11.10 in February. It was the highest April top in market history compared with \$10.90 last year; \$8.40 in 1914; \$9.10 in 1913; \$10.10 in 1912; and \$6.45 in 1911. The top prices on ewes was \$8.90 against \$8.75 in March, \$8.50 in April 1915, and \$6.80 in April, 1914. Yearlings sold up to \$10.25 against \$10.50 in March and \$8.75 in April, 1915.

J. E. P.

ABOUT DOCKING LAMBS.

I have read in your columns of so many good things that other fellows have found out by their various experiences in running sheep that I am a little timid about offering my own. I do not want to curtail the sale of any device for docking lambs, but want to tell my brother sheepmen my experience. I have known all the time that the knife was not good as the lambs bled too much; so I got a set of docking pincers from a Chicago firm to use hot and I found the burned stump healed very slowly and I was compelled to go over the lambs the second time and take out the fly blows and maggots.

I was castrating a colt one day for

which purpose I use an emasculator, which crimps the artery and prevents bleeding and it struck me that I could use the emasculator to cut off lambs' tails. So to try it out, I caught my wife feeding an orphan lamb with a bottle and I sneaked up and clipped off his tail before she noticed what I was up to. There was not a drop of blood, and the lamb never let go of the nipple but kept right on sucking. The stump healed quickly. No fire, no extra man and no loss of blood. Can you beat it?

C. A. JACKWAYS, Ovando, Mont.

Editor's Note—Where lambs' tails fly-blow after docking it is an indication that the tail was too much burned by the iron or pincers being too hot or held to the tail too long. With the docking chisel the tail is cut off so fast that there is no chance to kill the tissues if the operation is properly done.

EASTER LAMB FOR GREEKS.

Chicago, with its thousands of foreigners of every nationality, is the scene of many strange festivals and carnivals, very picturesque to American eyes. All during Easter week the sheep barns at the Stock Yards became the mecca of hundreds of Greeks, whose celebrations call for the serving of mutton as an Eastern delicacy. Naturally heavy consumers of this meat, they all made a special effort to obtain a bit of lamb in spite of the high prices this year.

One of requirements was that the lamb must be light weight. They would have none of the heavy fellows. Also they preferred the shorn lambs. Each buyer paid for his purchase in cash at the sheep barns, and carried the prize away on his shoulders. Had it not been for the amusement derived from this new angle of the business, the commission men would have been very much annoyed by the insistent traders, but everyone took it good naturedly, and the result in many cases was a very fancy price. One salesman estimated that 1000 lambs were bought in this manner for the Greek Easter.

J. C. K.